



Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly



Thank you to our contributors





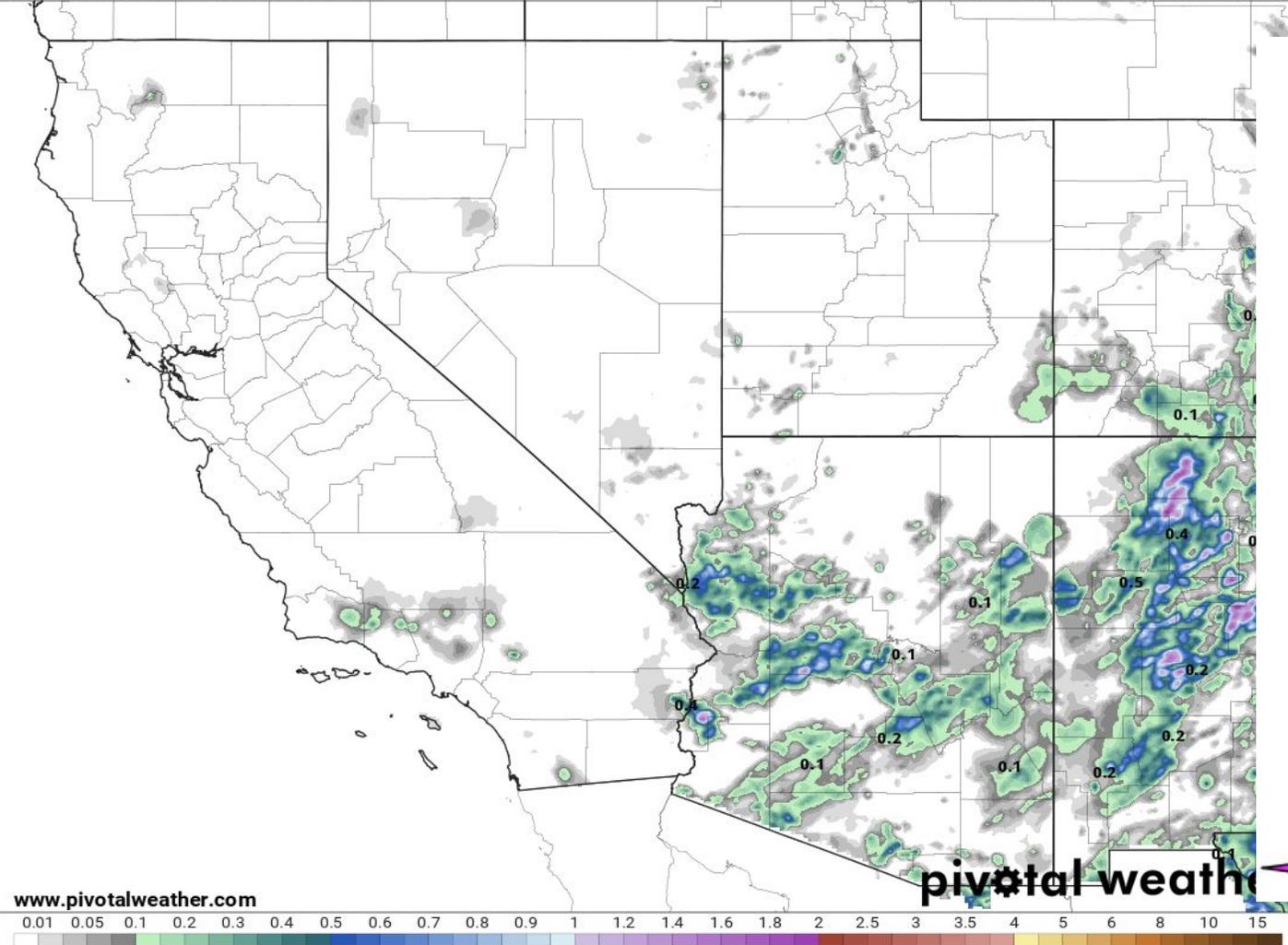
Utah Water Assessment & Conditions Monitoring Webinar

September 6, 2022

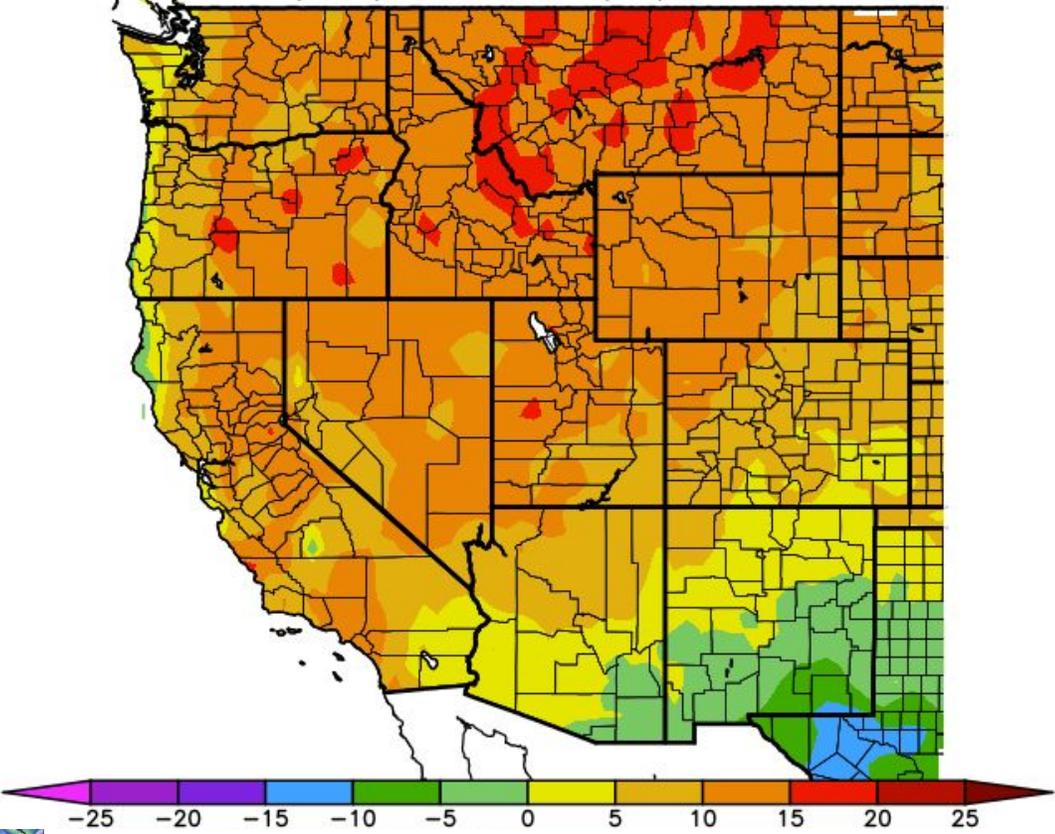
7-day Precipitation (Stage IV Data) & 7-day Max. Temp. Anomaly

168-Hour Stage IV Precipitation Analysis (in)
Ending Monday, Sep. 5, 2022 at 5 a.m. PDT

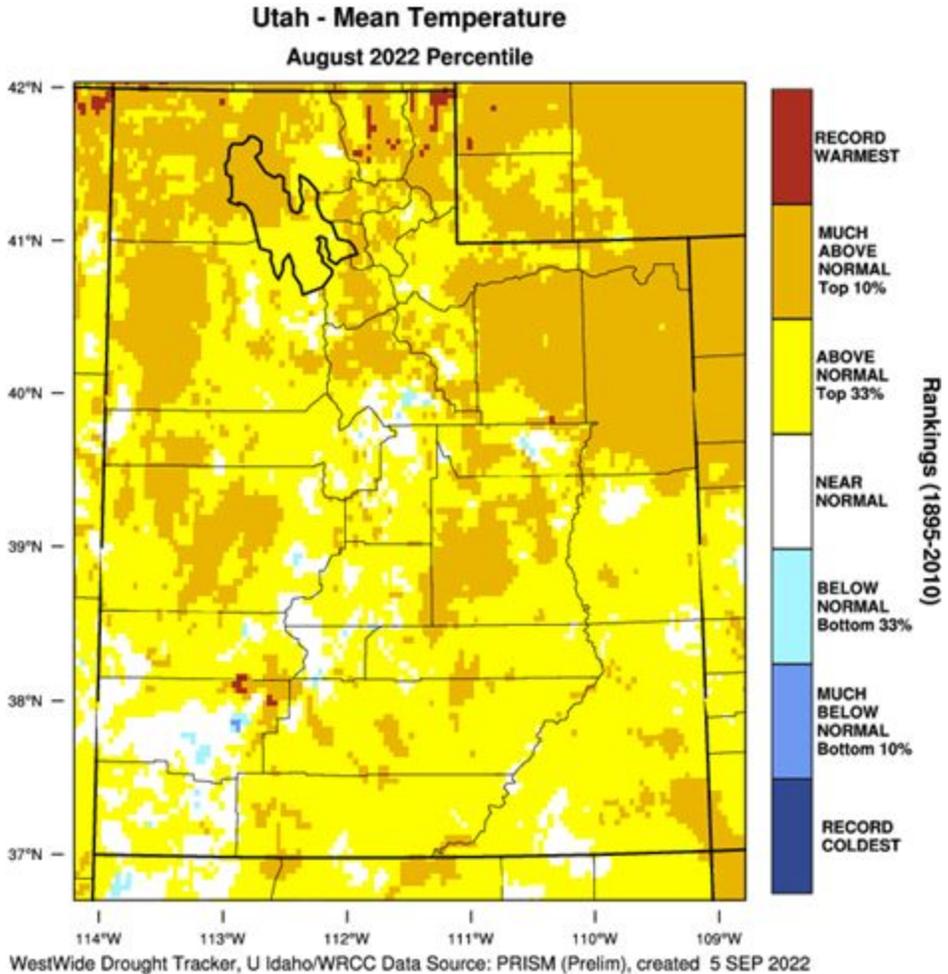
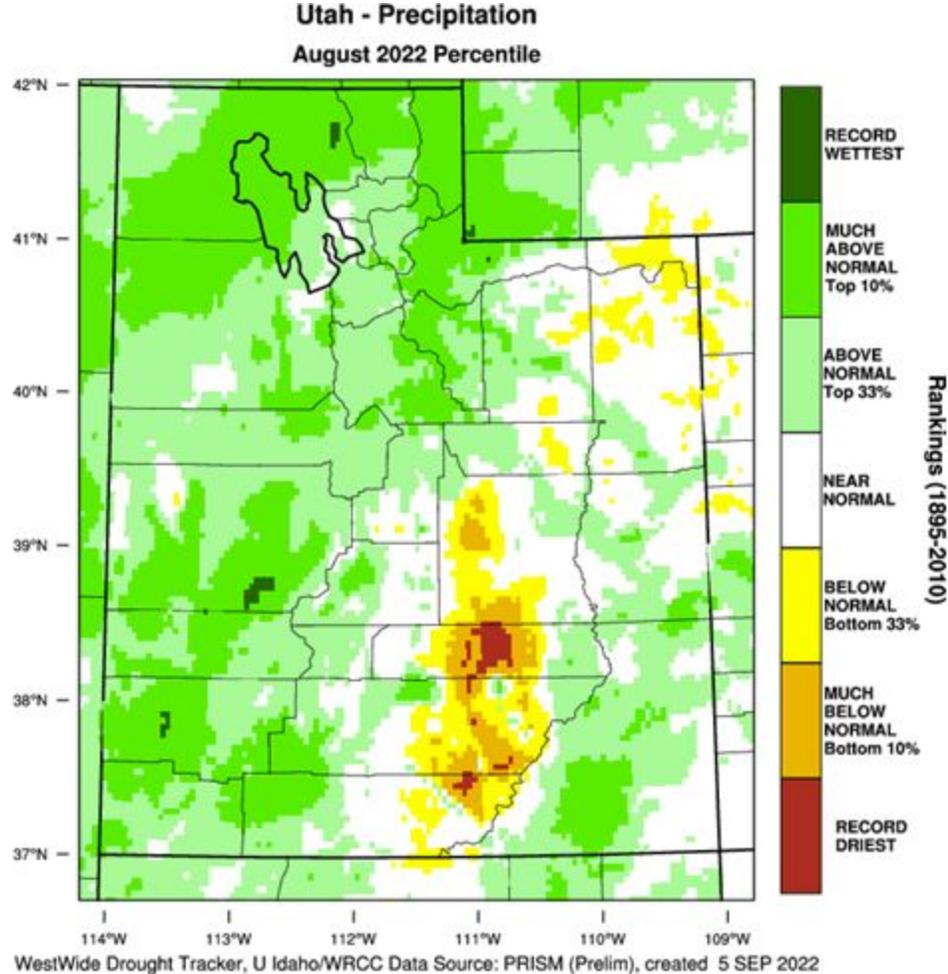
Init: Mon 2022-09-05 12z NCEP Stage IV



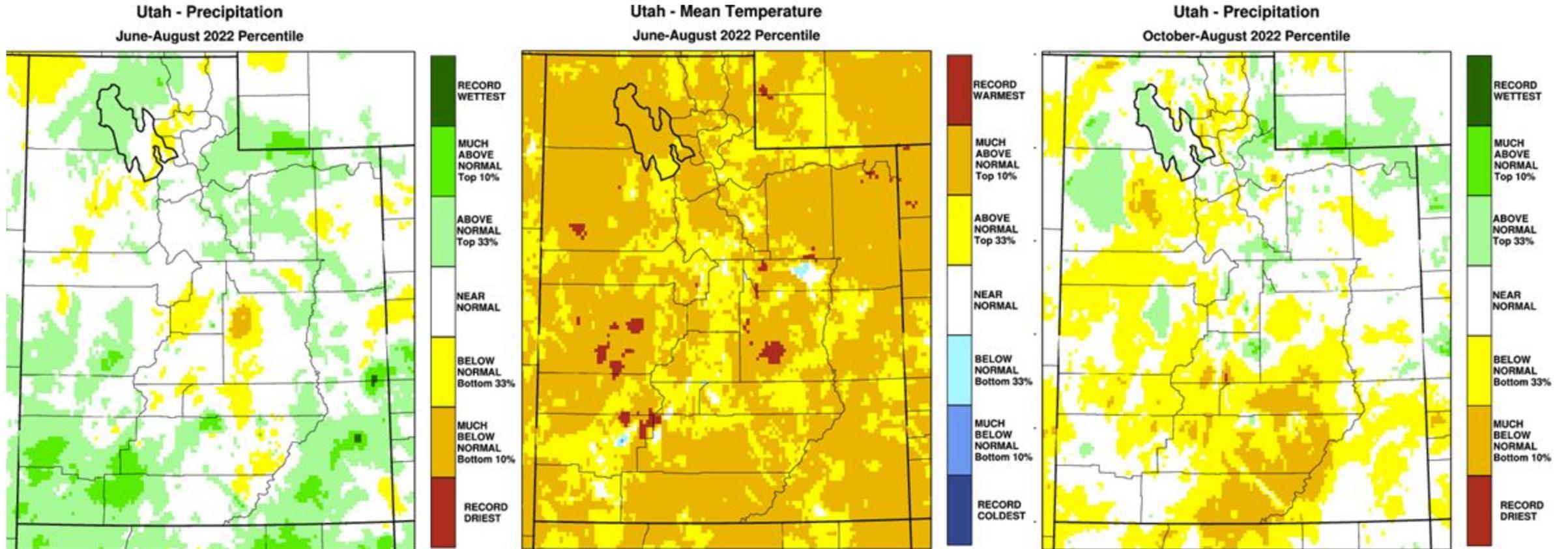
Av. Max. Temperature dep from Ave (deg F)
8/30/2022 - 9/5/2022



August Precipitation and Temperature

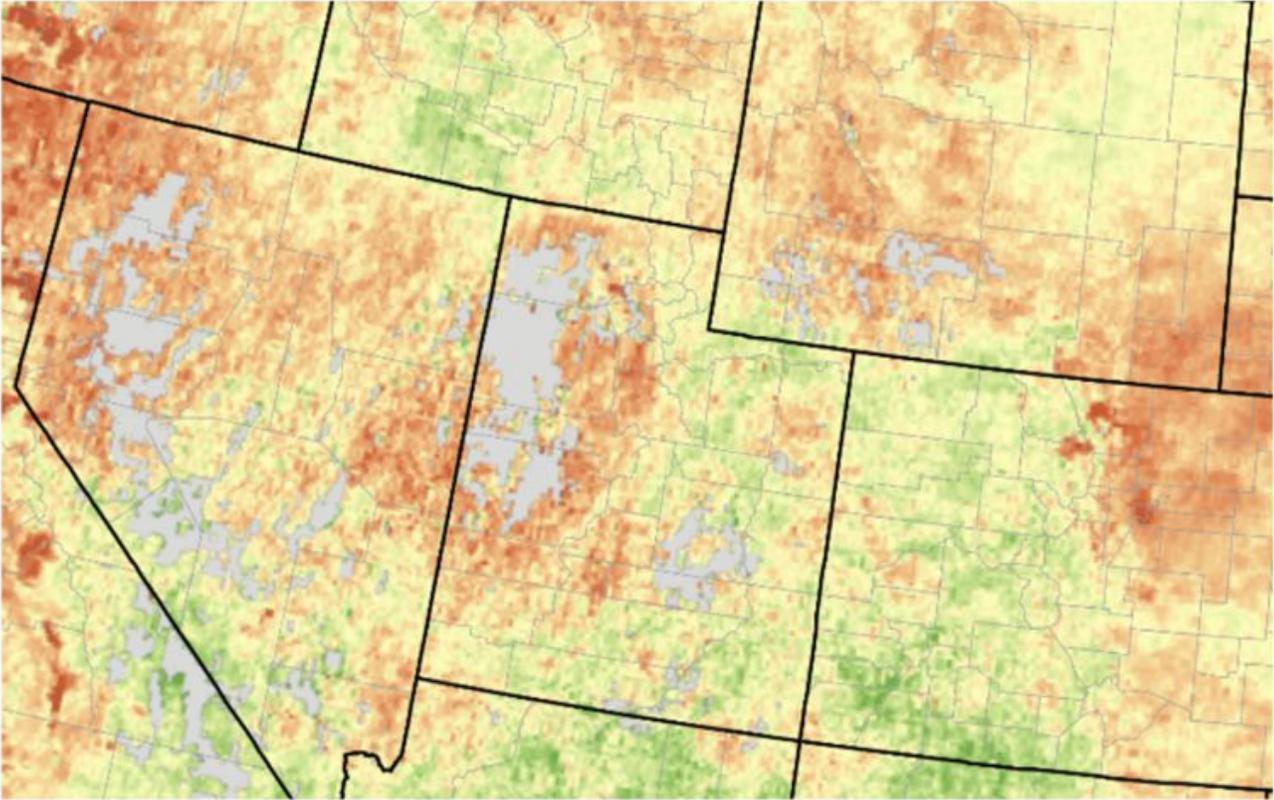


June-August Summer Precipitation and Temperature + Water Year Precipitation



Evaporative Stress Index

U.S. Vegetation and Drought: Evaporative Stress Index



Standardized ET/PET Anomalies

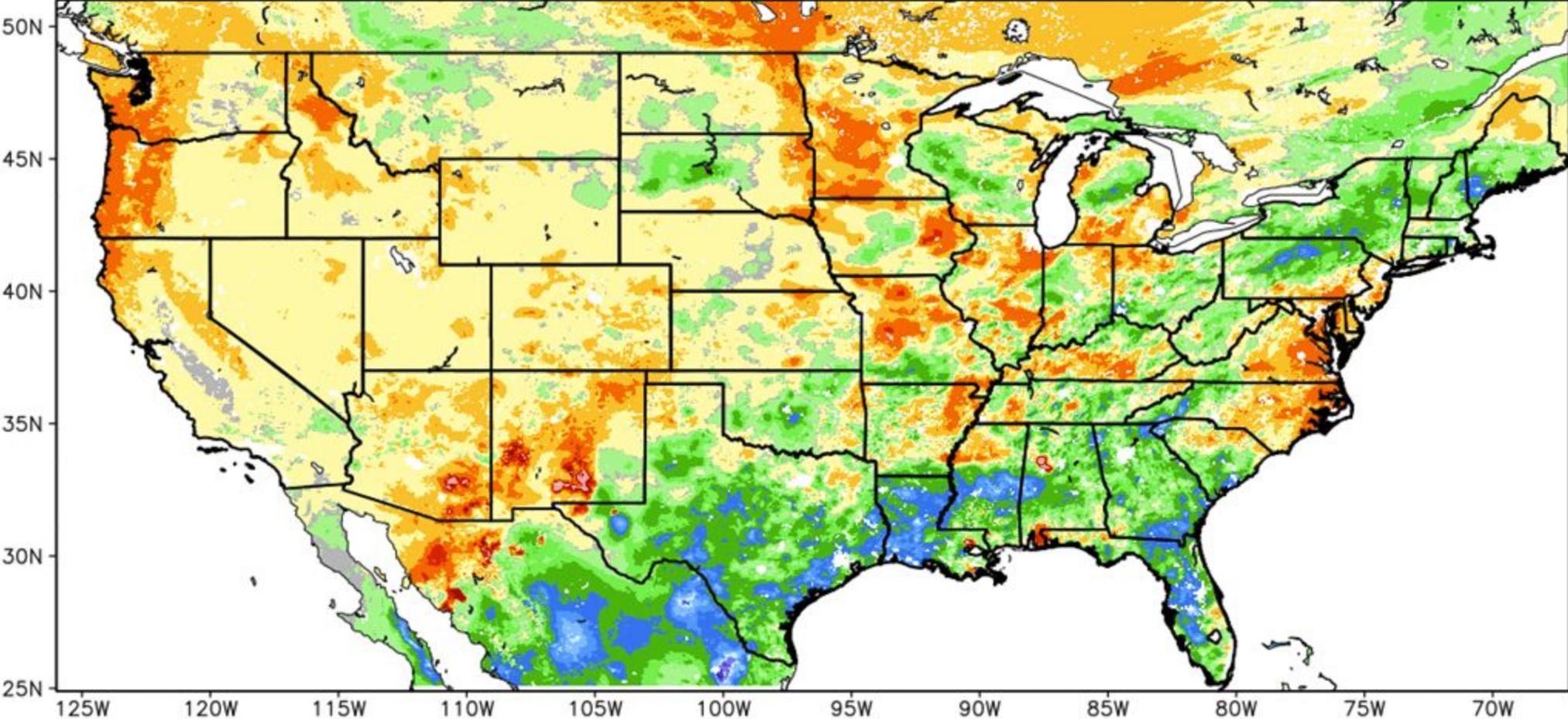


Source(s): NASA SERVIR
Last Updated - 09/06/22

[Drought.gov](https://drought.gov)

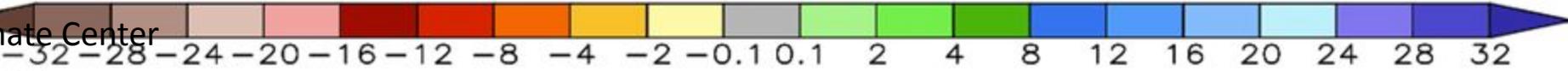
Soil Moisture Change

2-Week Difference in Column Relative Soil Moisture (%) valid 00z 06 Sep 2022



Agency - Utah Climate Center
Presenter - Jon Meyer

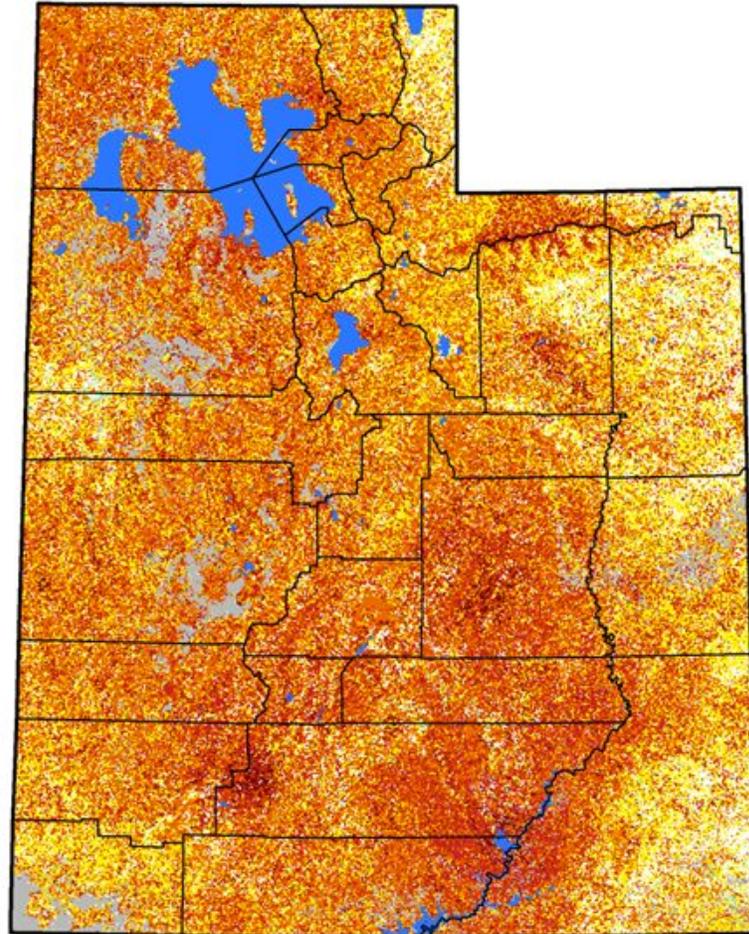
Experimental



Vegetation Drought Response Index

Complete: Utah

July 31, 2022



Vegetation Condition

- Extreme Drought
- Severe Drought
- Moderate Drought
- Pre-drought stress
- Near Normal
- Unusually Moist
- Very Moist
- Extreme Moist
- Out of Season
- Water

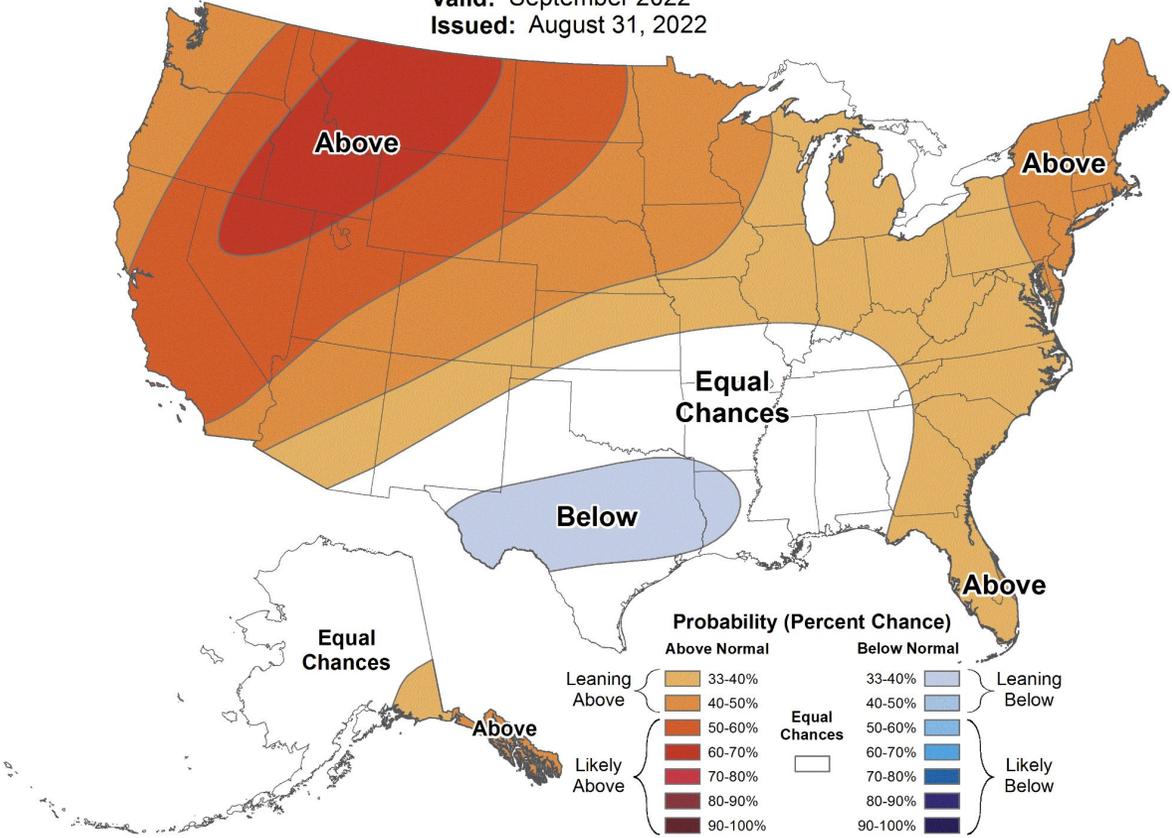


CPC September Outlook



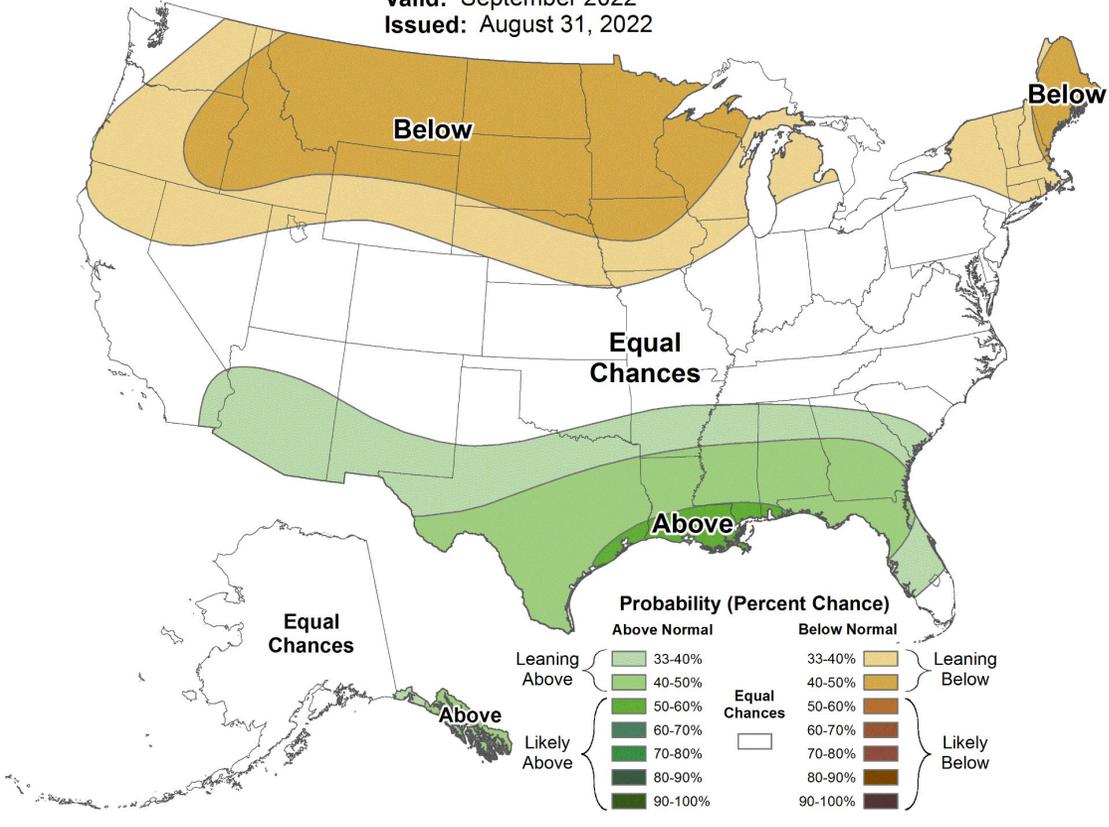
Monthly Temperature Outlook

Valid: September 2022
Issued: August 31, 2022



Monthly Precipitation Outlook

Valid: September 2022
Issued: August 31, 2022



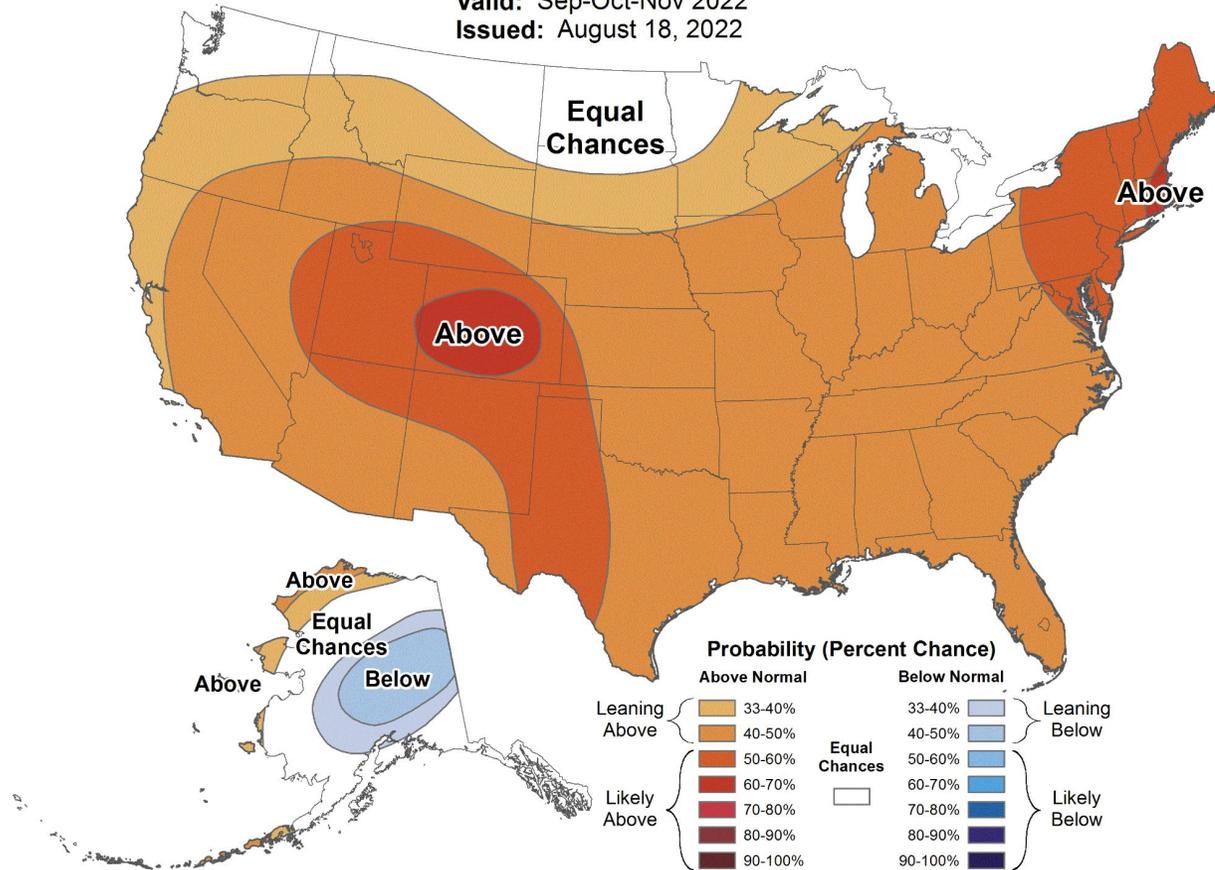
CPC Sept-Nov. Outlook



Seasonal Temperature Outlook



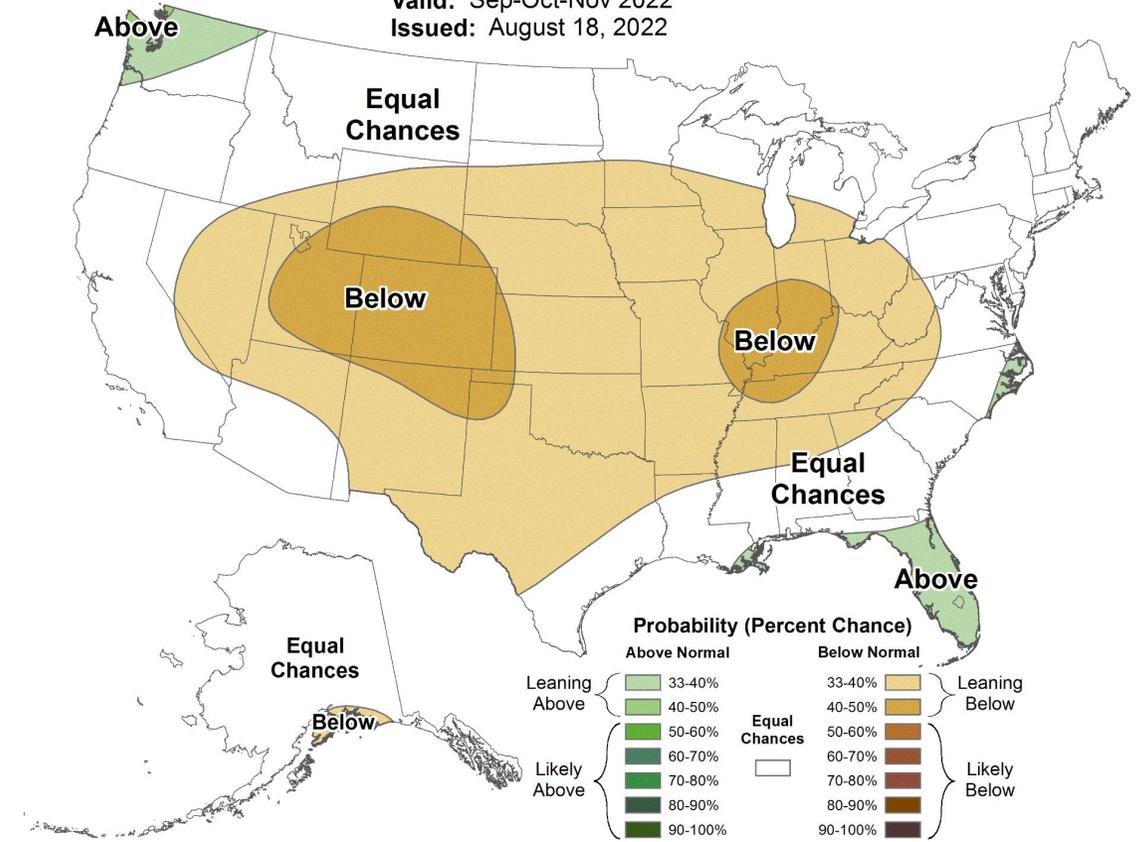
Valid: Sep-Oct-Nov 2022
 Issued: August 18, 2022



Seasonal Precipitation Outlook



Valid: Sep-Oct-Nov 2022
 Issued: August 18, 2022



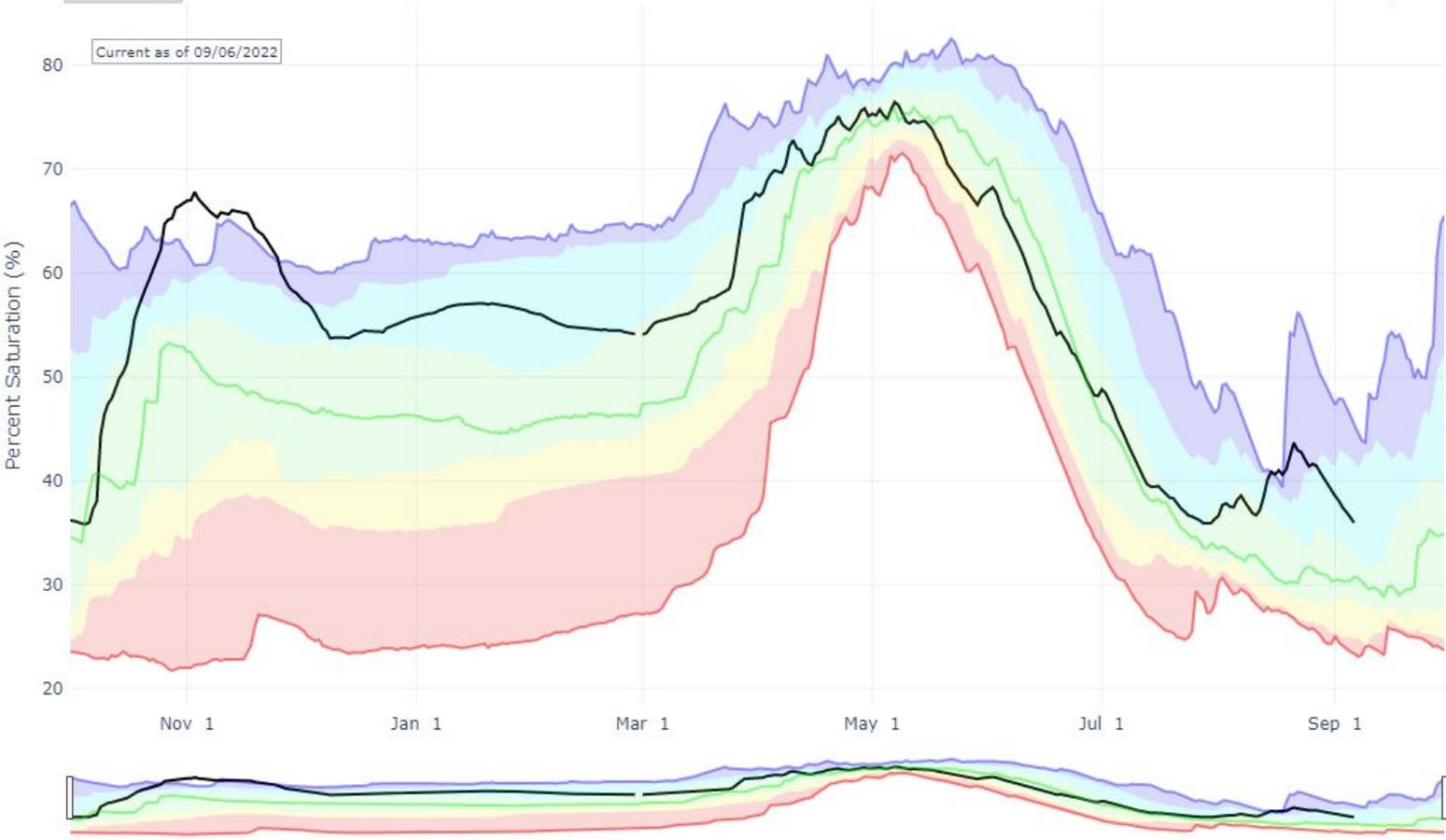
Soil Moisture

DEPTH AVERAGED SOIL SATURATION IN STATE OF UTAH

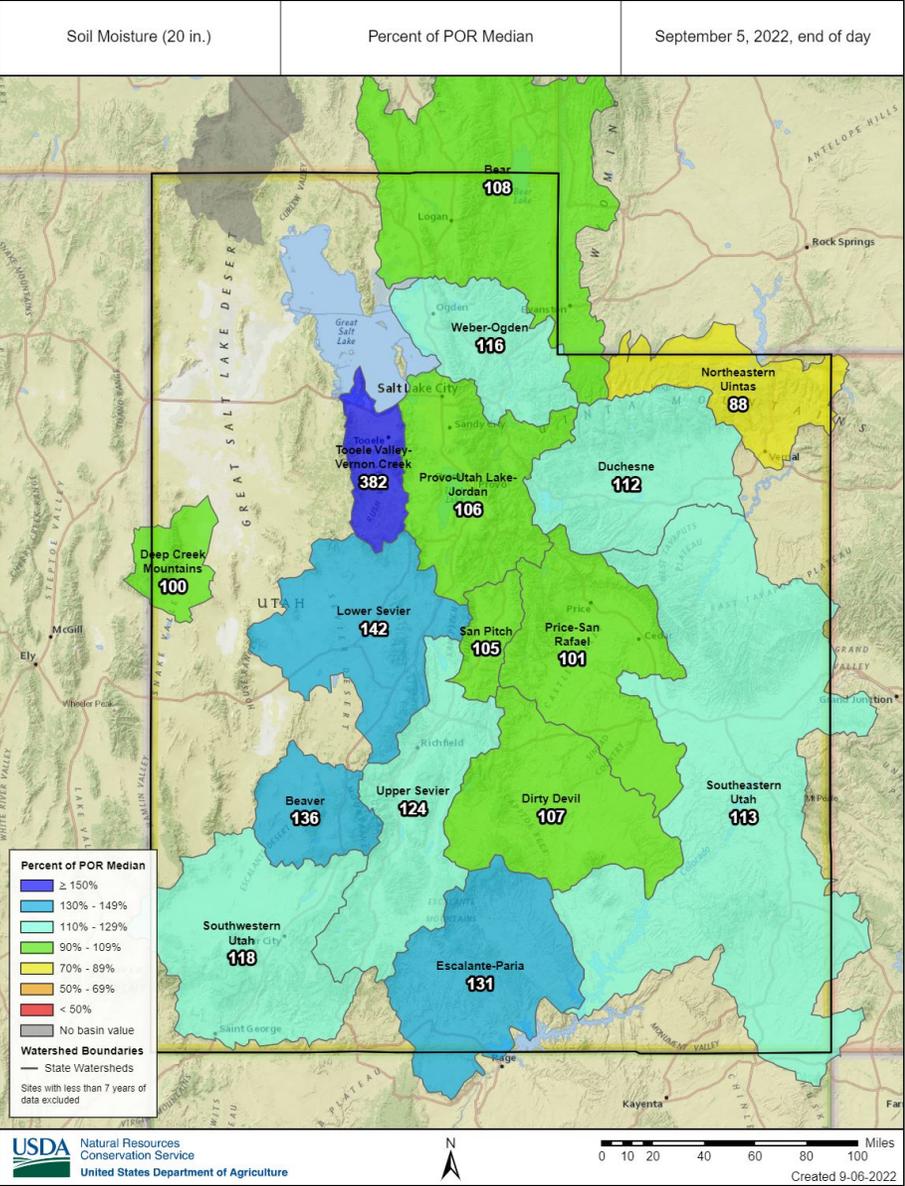
Reset Range

Link to data: CSV / JSON

Current as of 09/06/2022



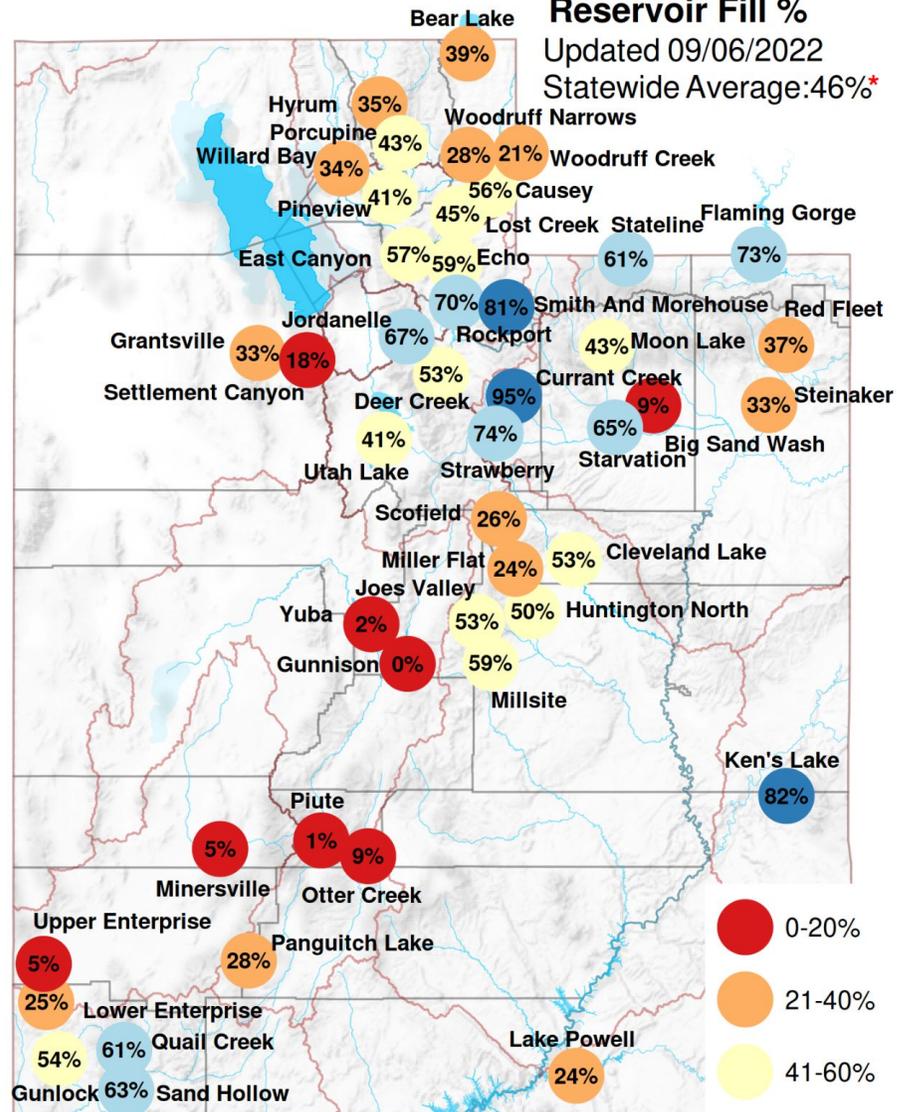
Agency - NRCS Snow Survey
Slide from Jordan Clayton



Reservoir Fill %

Updated 09/06/2022

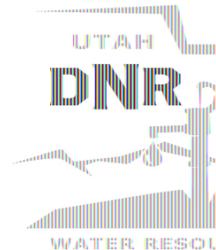
Statewide Average: 46%*



Data Sources: water.utah.gov/reservoirlevels

*State average excludes Lake Powell & Flaming Gorge to better represent the state's water supply.

Total capacity including these is 38%

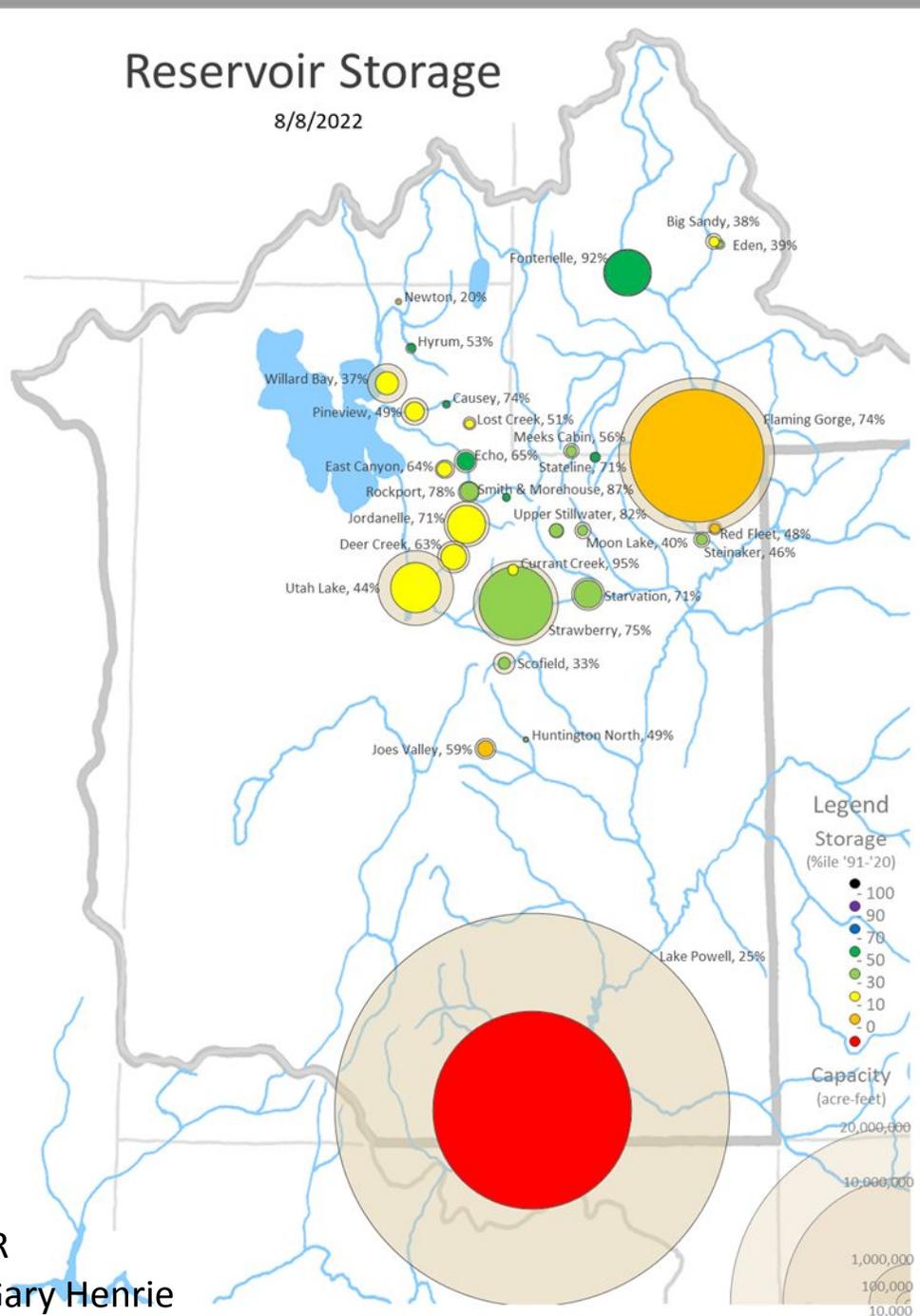


Agency - Division of Water Resources
 Presenter - Laura Haskell

Reservoir

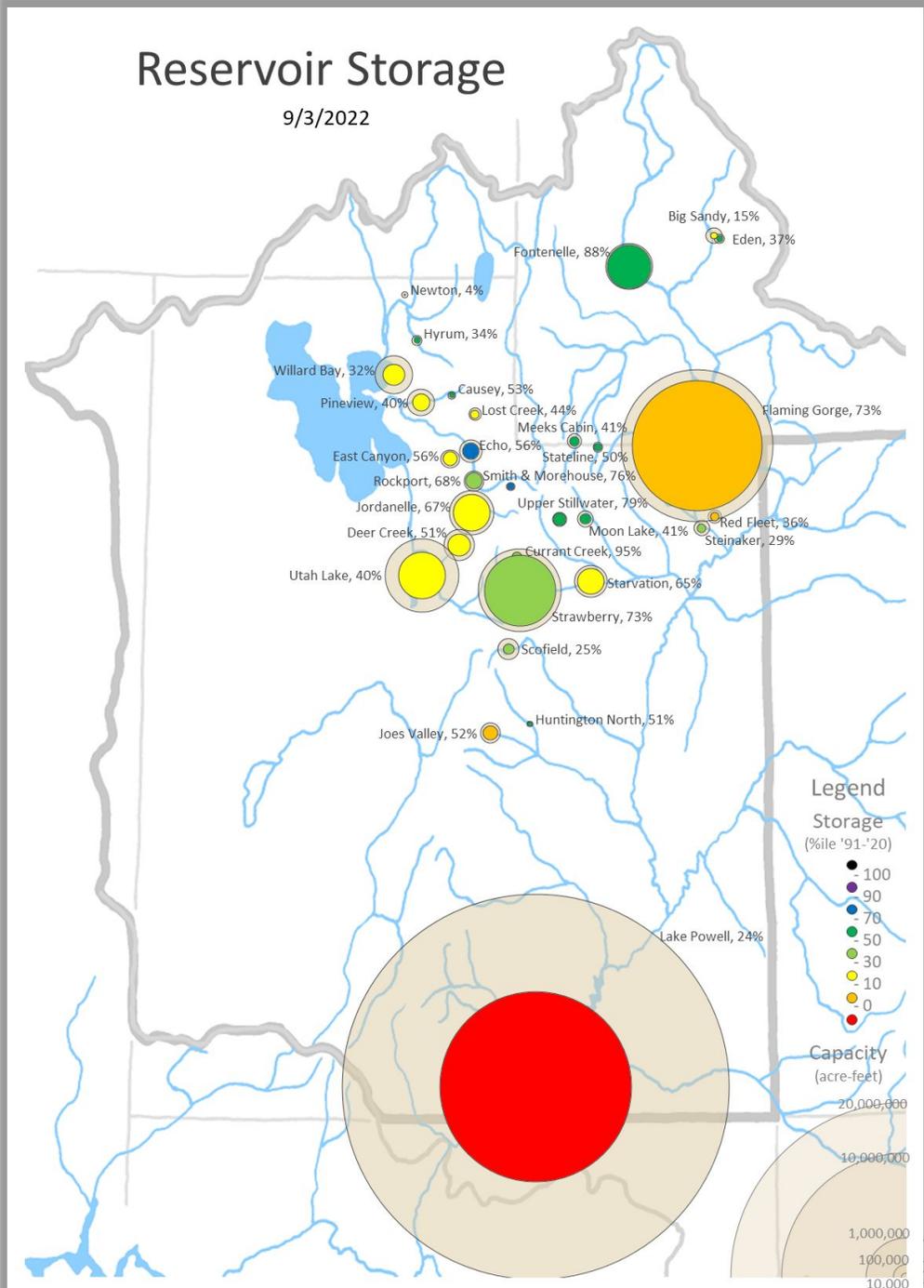
Reservoir Storage

8/8/2022



Reservoir Storage

9/3/2022

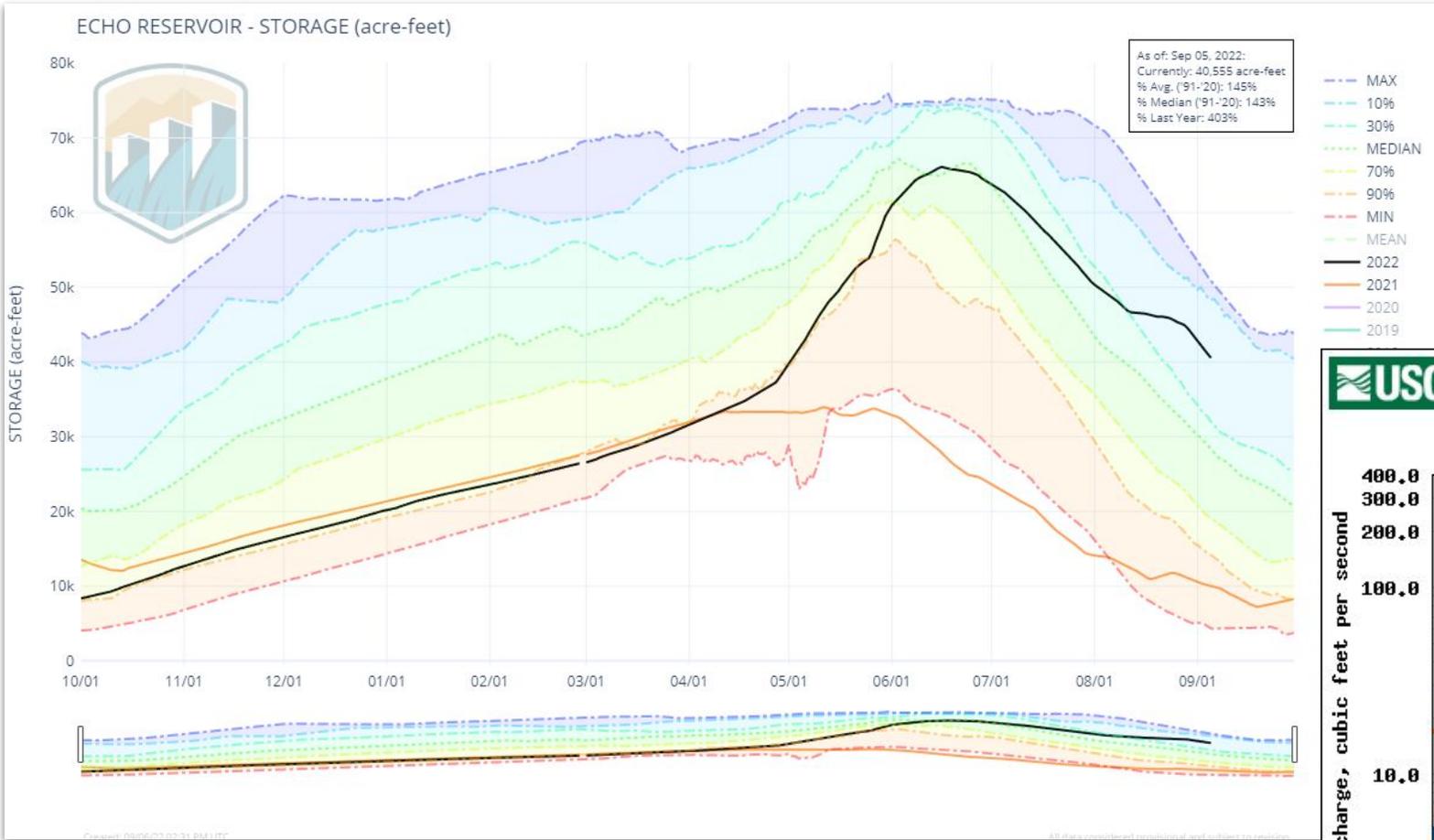


Agency - BOR
Presenter - Gary Henrie

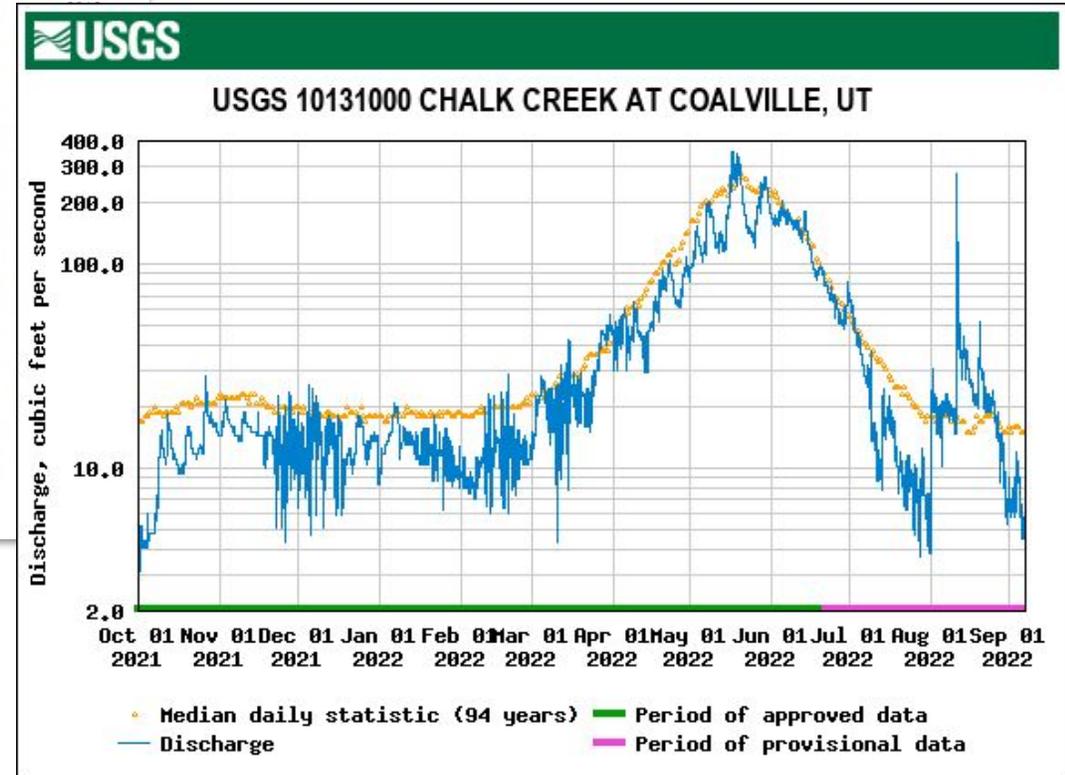


BUREAU OF RECLAMATION

Reservoir Levels

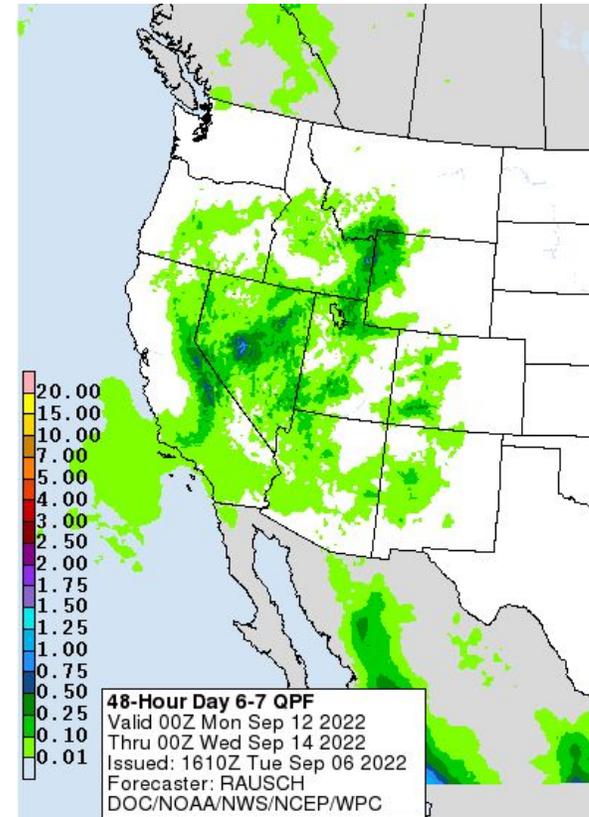
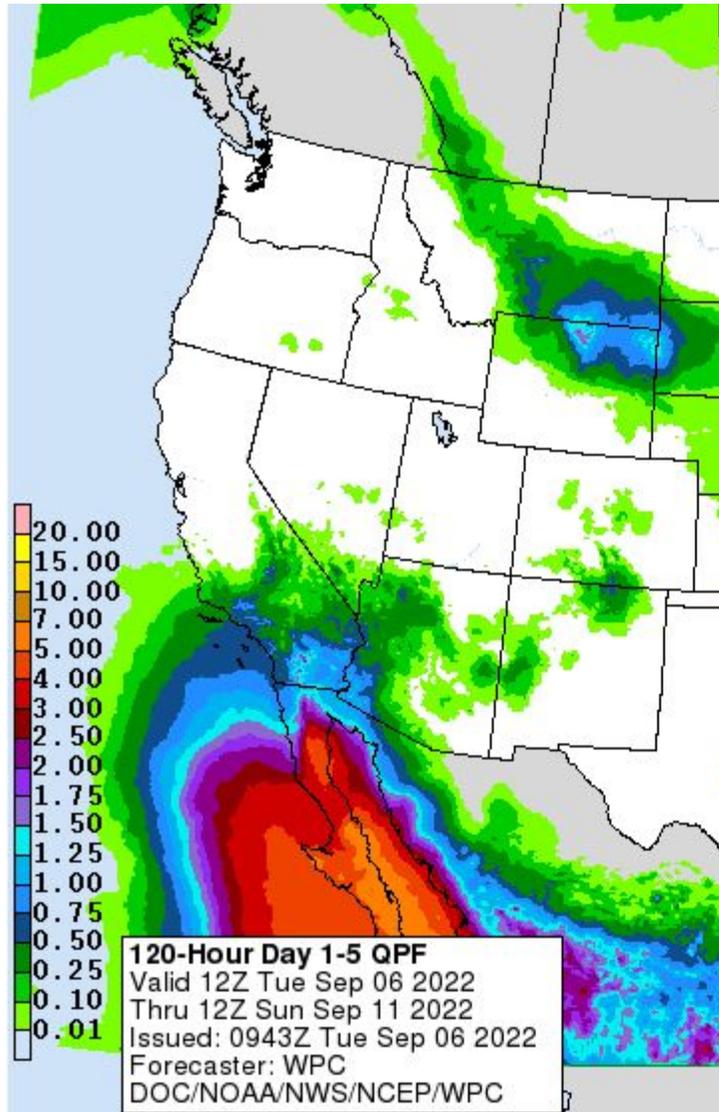


https://www.usbr.gov/uc/water/hydrodata/reservoir_data/site_map.html



Agency - BOR
 Presenter - Gary Henrie

Weather Forecast Office Utah Day 1-7 Outlook



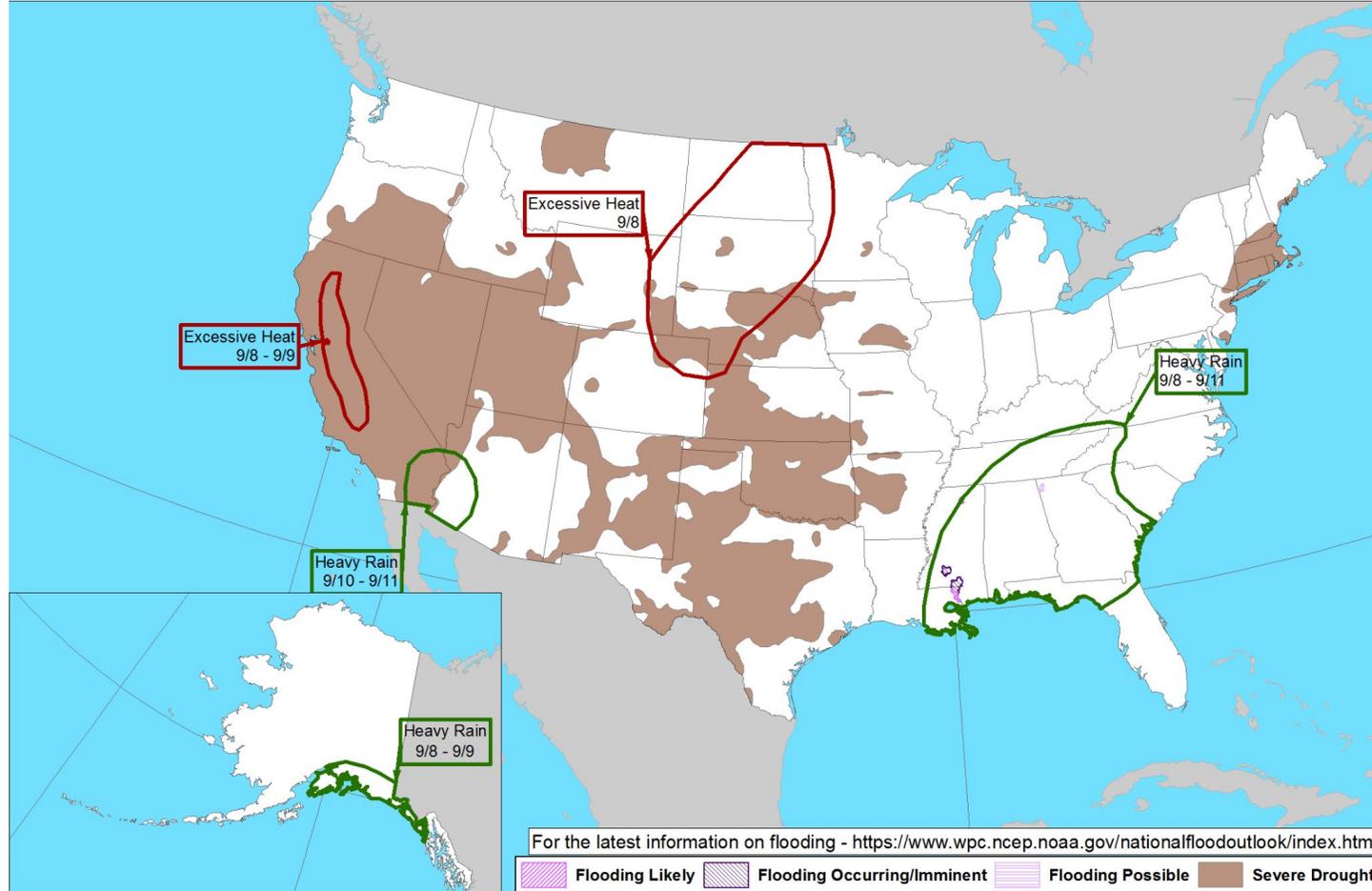
- **Dangerously hot temperatures for early September will be in place through Wednesday for most locations and perhaps Thursday for Lower Washington County, Zion National Park and Glen Canyon National Recreation Area**
- **Record-breaking heat both in terms of magnitude and duration for early September will continue across most valley areas of Utah, especially through Wednesday and possibly into Thursday.**
- **Some moisture is expected to return to southern Utah by Sunday and much of the state by Monday, but the details remain uncertain at this time**

Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill

Weather Prediction Center U.S. Day 3-7 Hazards Outlook



Day 3-7 U.S. Hazards Outlook
Valid: 09/08/2022-09/12/2022



Weather Prediction Center

Made: 09/05/2022 3PM EDT

Follow us:

www.wpc.ncep.noaa.gov

Agency - National Weather Service Weather Forecast Office

Presenter - Glen Merrill

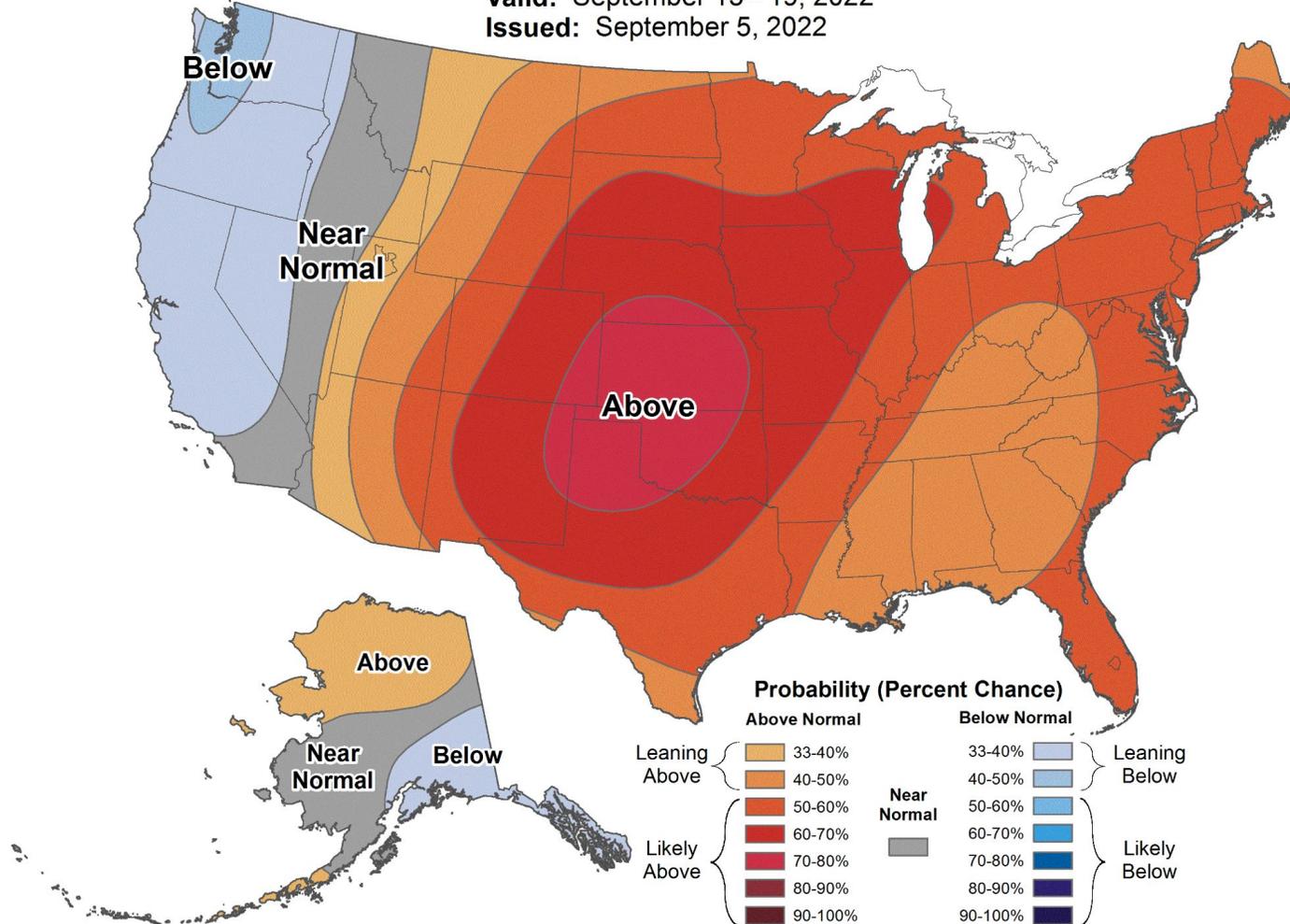
Climate Prediction Center 8 to 14 Day Outlooks - Temperature



8-14 Day Temperature Outlook



Valid: September 13 - 19, 2022
Issued: September 5, 2022



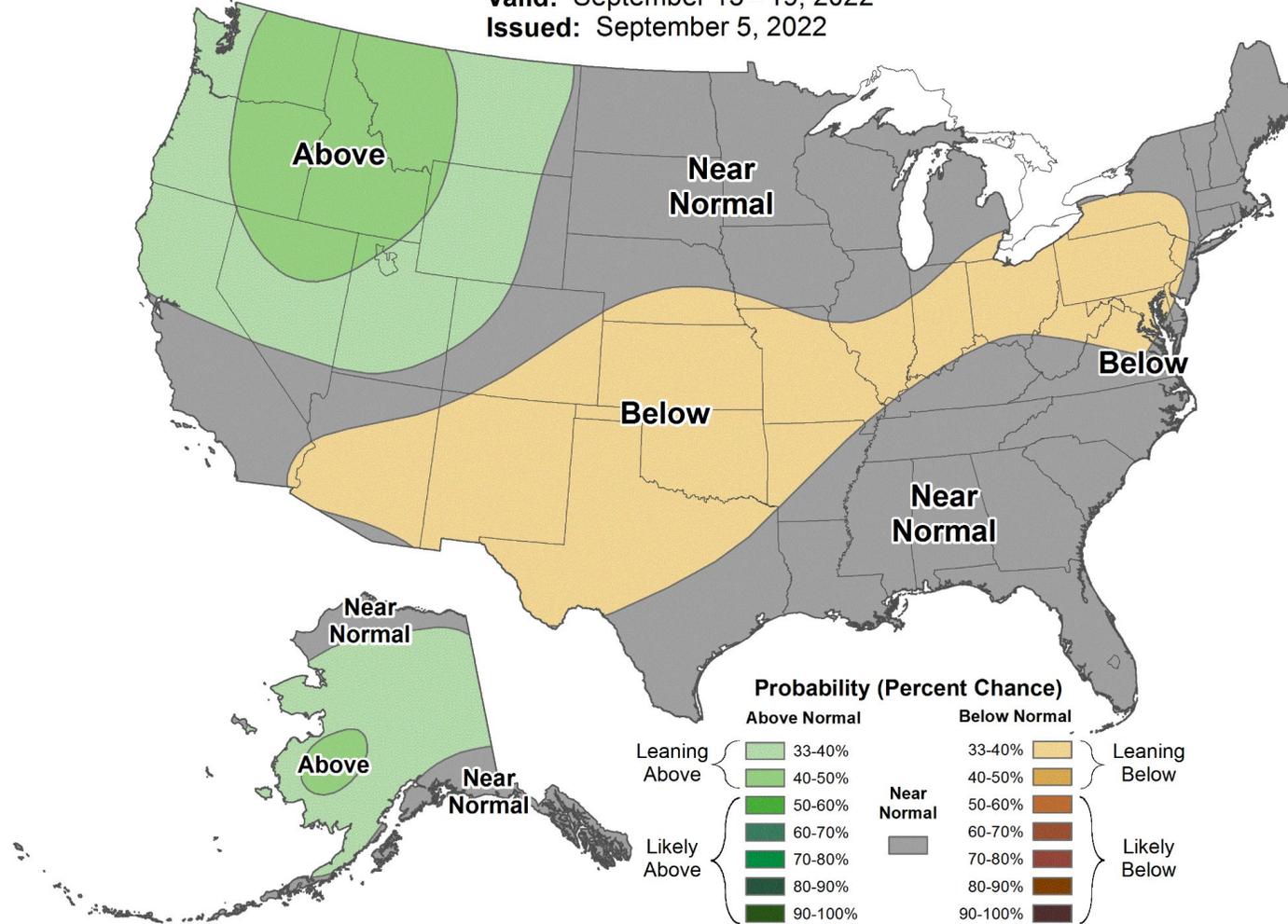
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation



8-14 Day Precipitation Outlook



Valid: September 13 - 19, 2022
Issued: September 5, 2022



Agency - National Weather Service Weather Forecast Office

Presenter - Glen Merrill

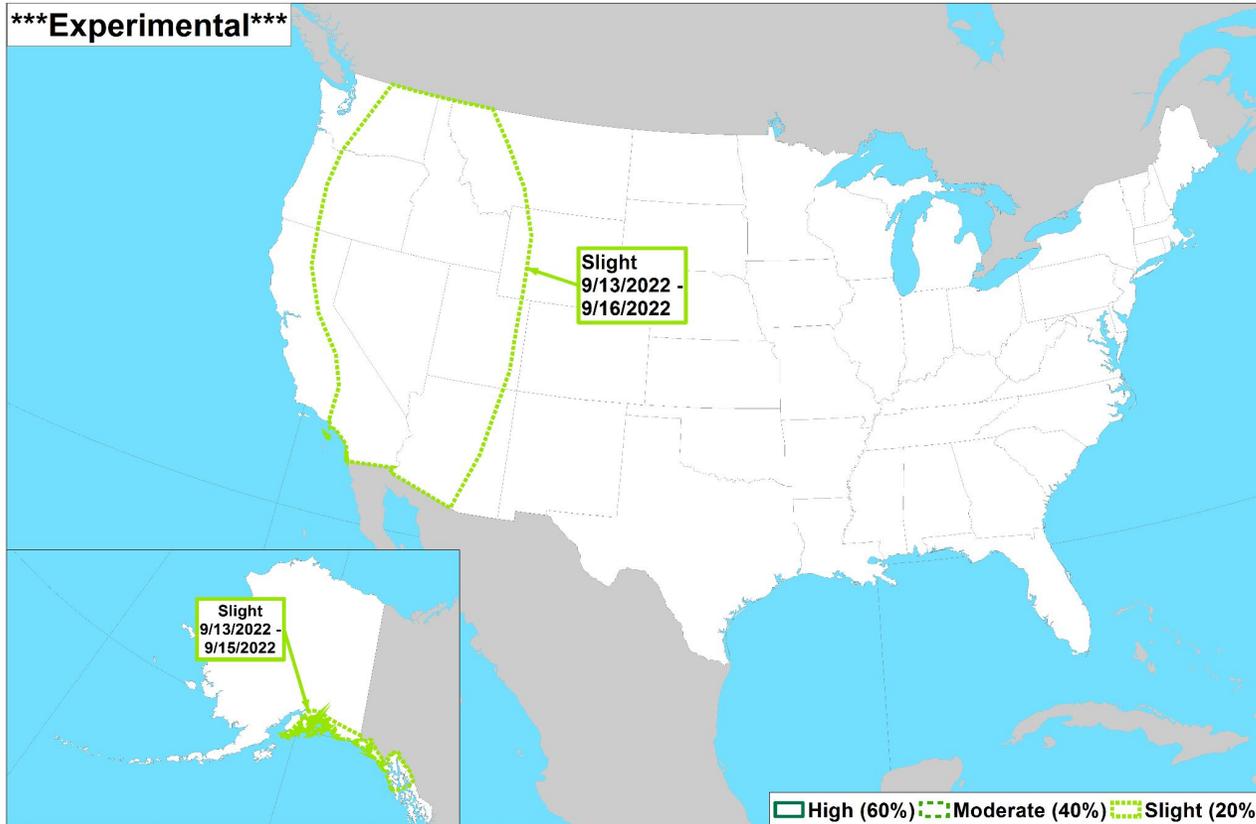
Climate Prediction Center U.S. Week-2 Hazards Outlook



Risk of Heavy Precipitation
Valid: 09/13/2022-09/19/2022



Experimental



Climate Prediction Center

Made: 09/05/2022 3PM EDT

Follow us:

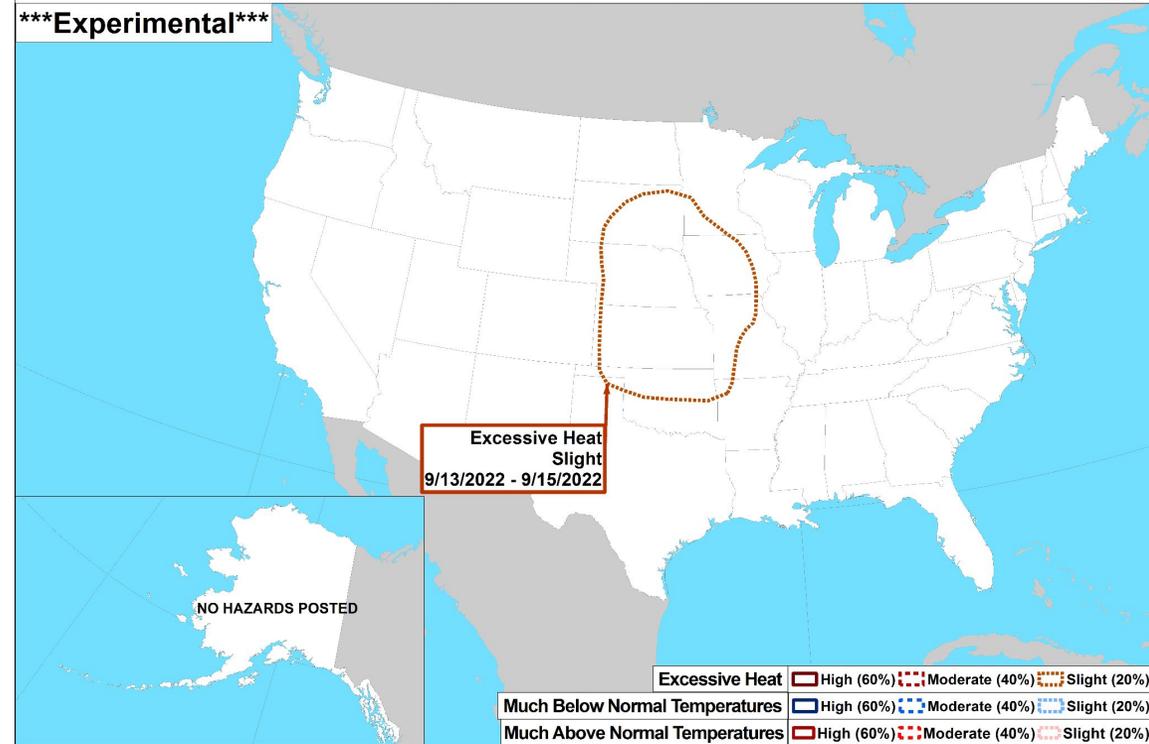
www.cpc.ncep.noaa.gov



Risk of Hazardous Temperatures
Valid: 09/13/2022-09/19/2022



Experimental



Climate Prediction Center

Made: 09/05/2022 3PM EDT

Follow us:

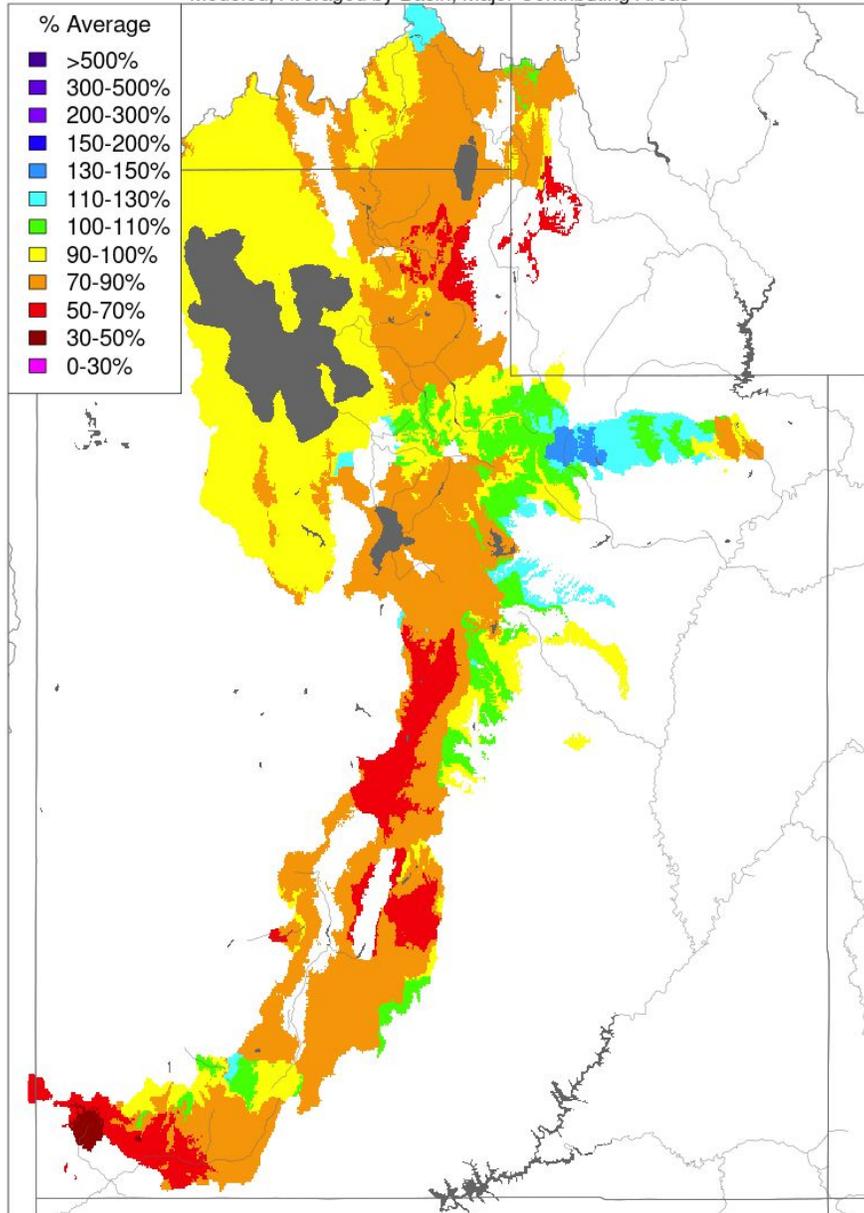
www.cpc.ncep.noaa.gov

Agency - National Weather Service Weather Forecast Office

Presenter - Glen Merrill

Soil Moisture - Fall - 2021 (November 15)

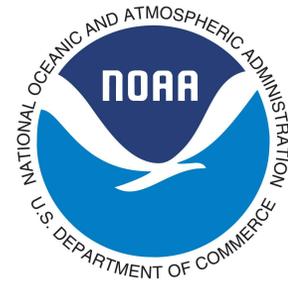
Modeled, Averaged by Basin, Major Contributing Areas



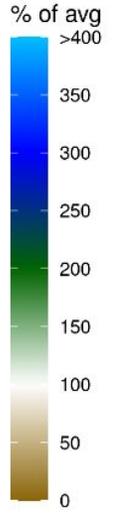
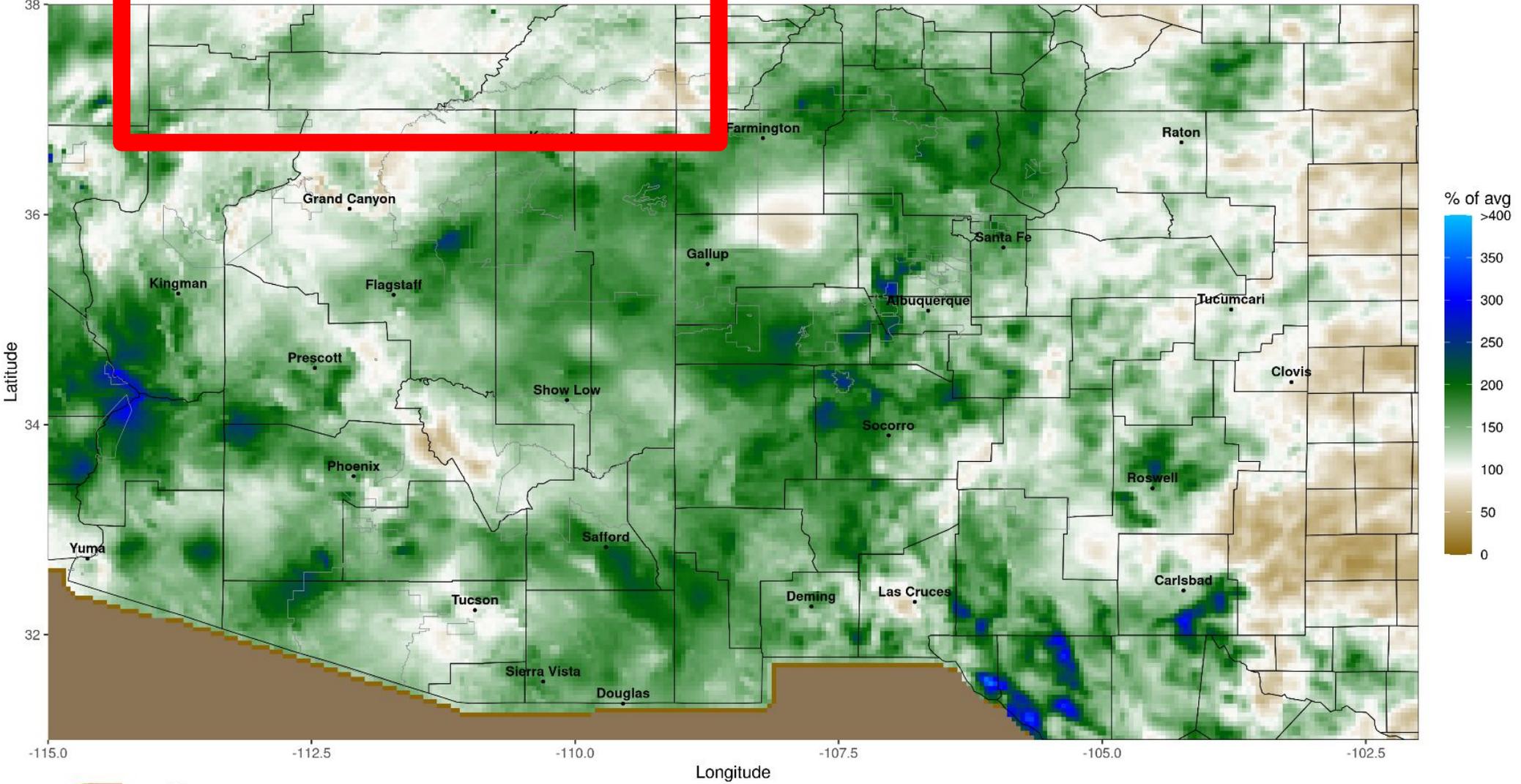
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov



During this time of the year, the CBRFC is focused on providing continuous support for reservoir operators who are continuing to meet demands for irrigation and other uses. Soon, we'll begin to take a hard look at baseflow conditions as irrigation demands decline and stop, but before gages freeze. This will give us a good idea regarding the state of deep soil moisture conditions, and how those conditions may impact next year's snowmelt runoff.

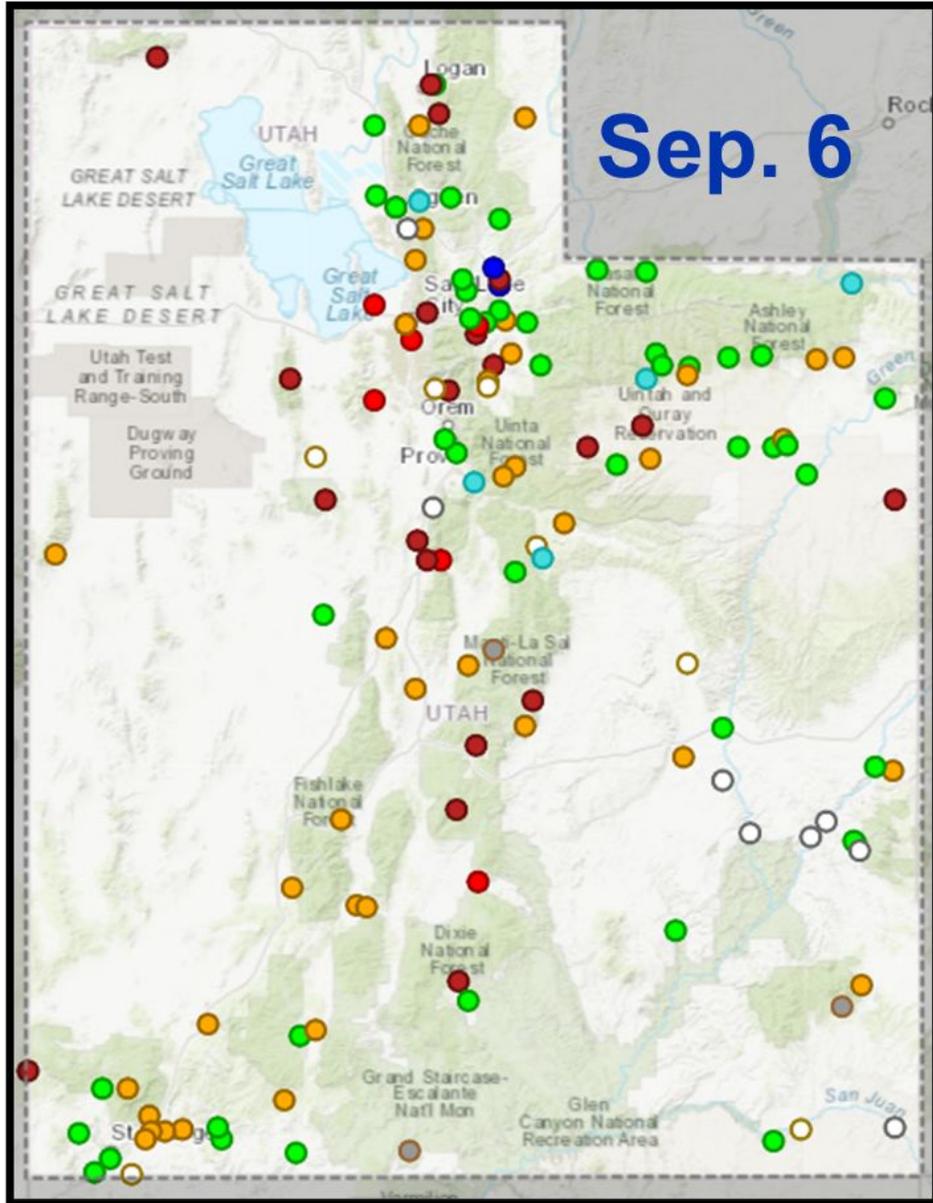


Percent of Average Precipitation (%): 2022-06-15 to 2022-09-05



Current Streamflow Conditions

Aug. 22 Sep. 6



Day-of-Year Status	% Gages	% Gages
All-time high for this day-of-year	0.7%	0.7%
Much above normal for this day-of-year	3.6%	1.5%
Above normal for this day-of-year	15.3%	4.4%
Normal for this day-of-year	37.2%	32.8%
Below normal for this day-of-year	19.0%	27.7%
Much below normal for this day-of-year	9.5%	15.3%
All-time low for this day-of-year	2.9%	4.4%
Not ranked - insufficient record	7.3%	7.3%
Not ranked - stream not flowing	2.2%	3.6%

Streamflow: Status

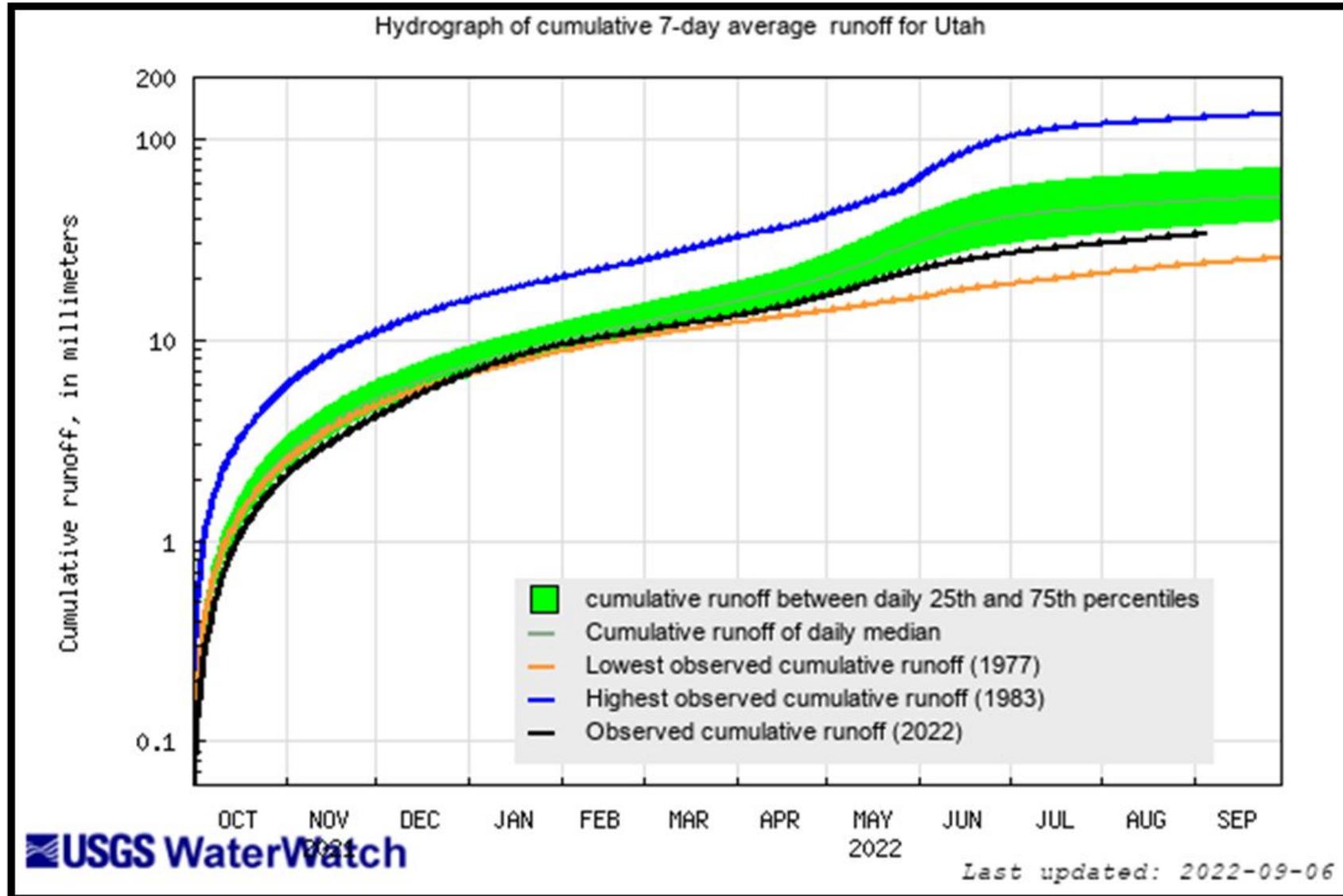
- Above flood stage
- All-time high for this day (100th percentile (maximum))
- Much above normal (>90th percentile)
- Above normal (76th – 90th percentile)
- Normal (25th – 75th percentile)
- Below normal (10th – 24th percentile)
- Much below normal (<10th percentile)
- All-time low for this day (0th percentile (minimum))
- Not flowing
- Not ranked
- Measurement flag
- Recent measurement unavailable

*Sites must have at least 10 years of streamflow record to be ranked on this graphic

Agency - USGS UT WSC
 Presenter - Ryan Rowland

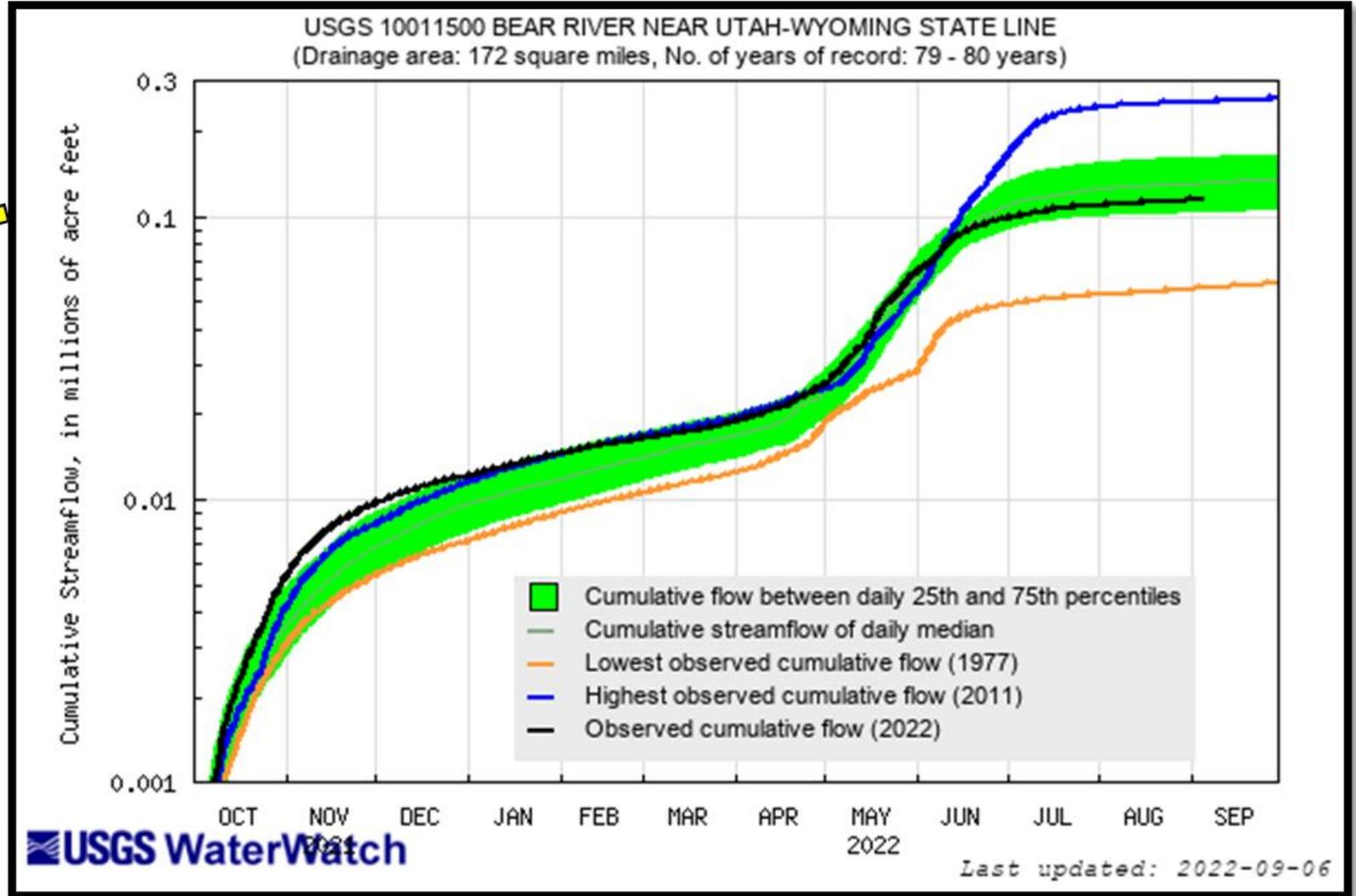
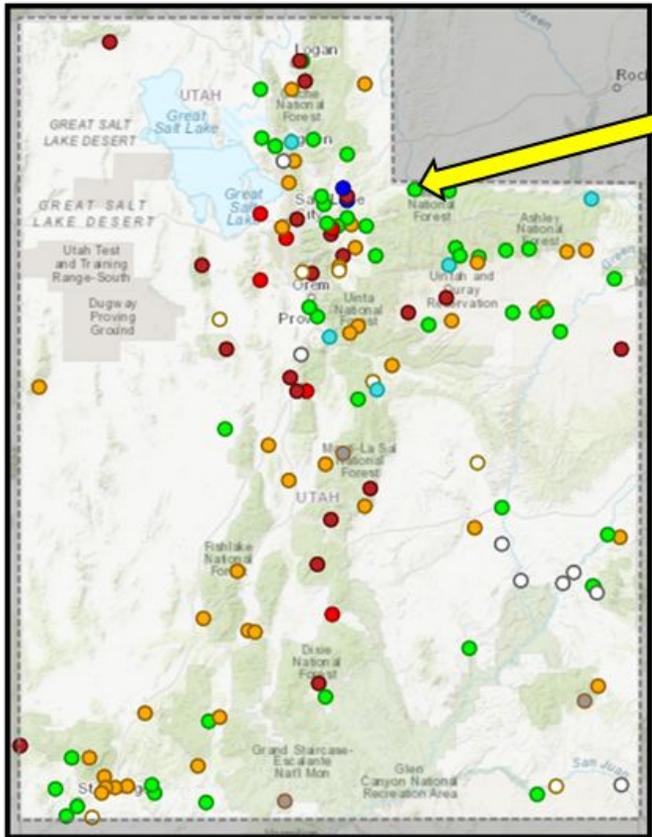


Area Based Cumulative Runoff for Utah

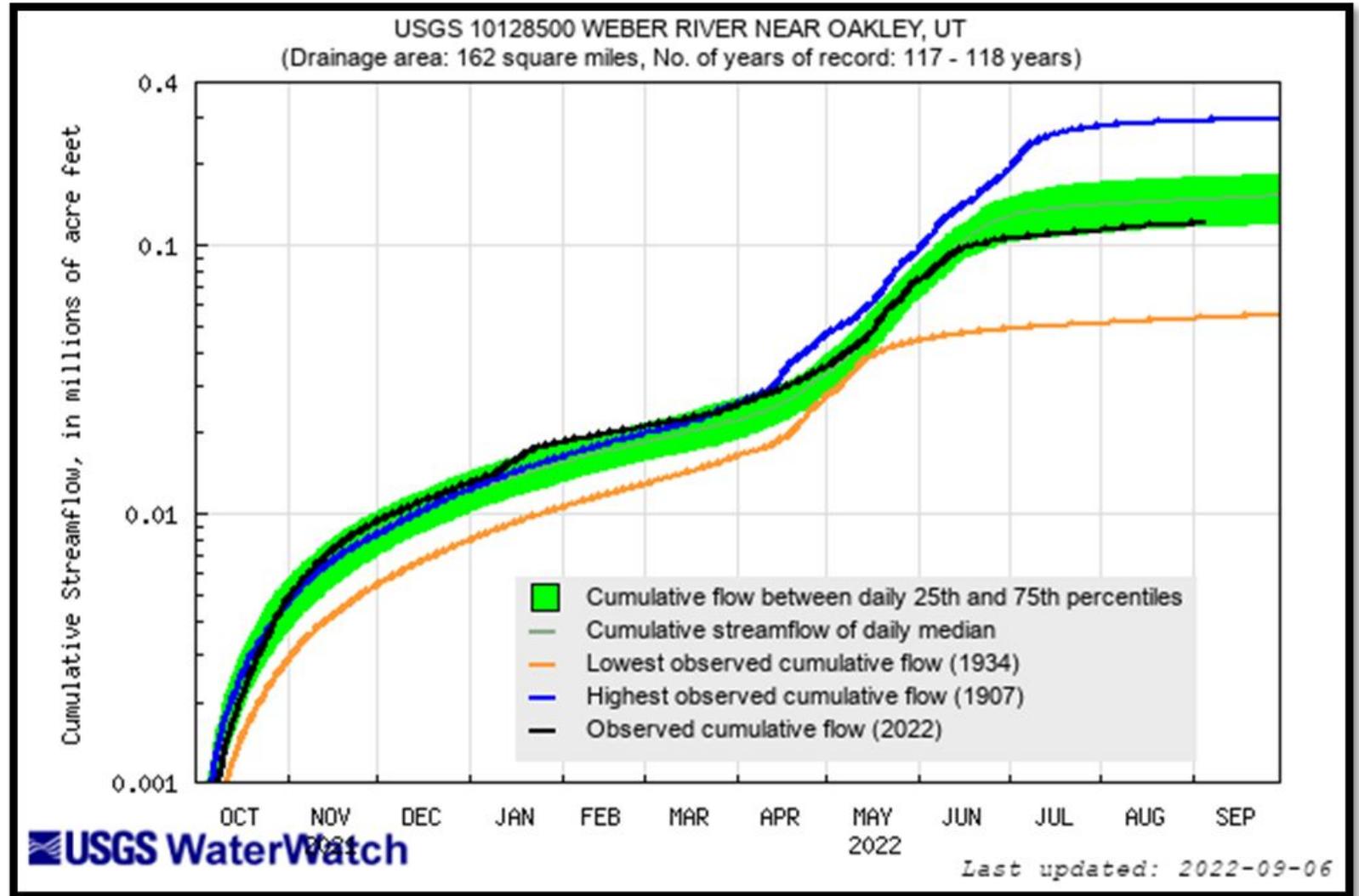
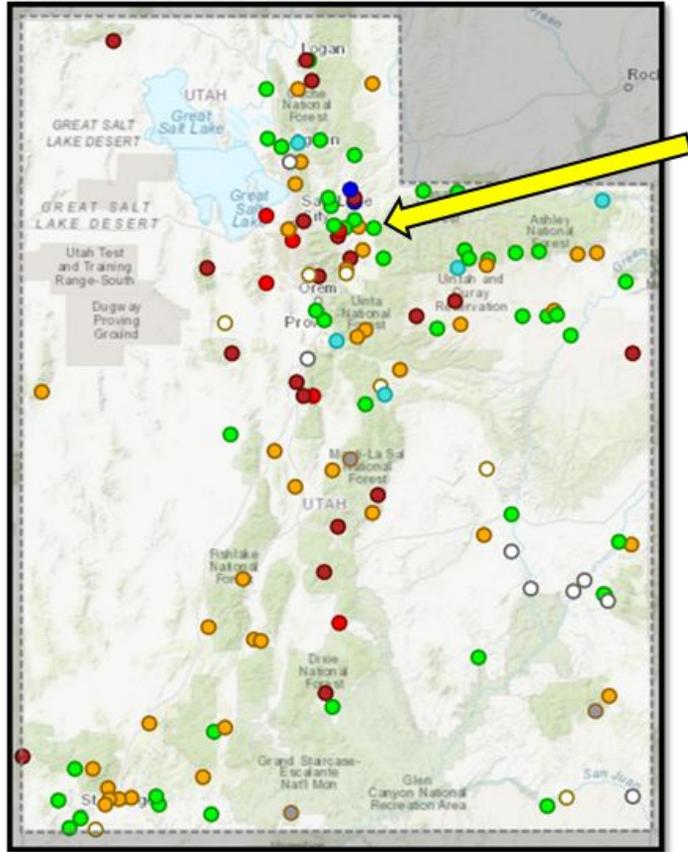


□ Area based runoff computed from mixed regulated and unregulated streamflows

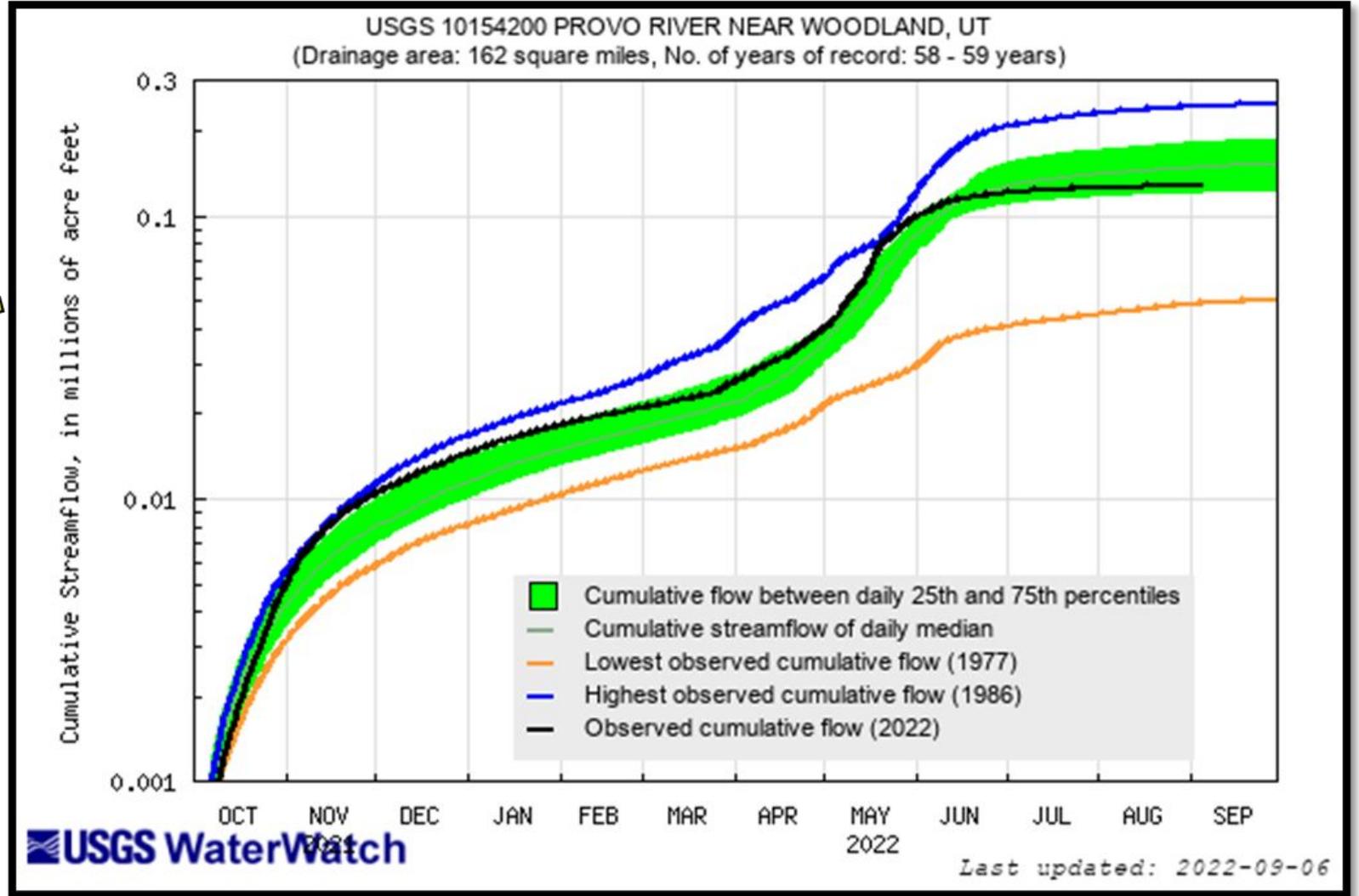
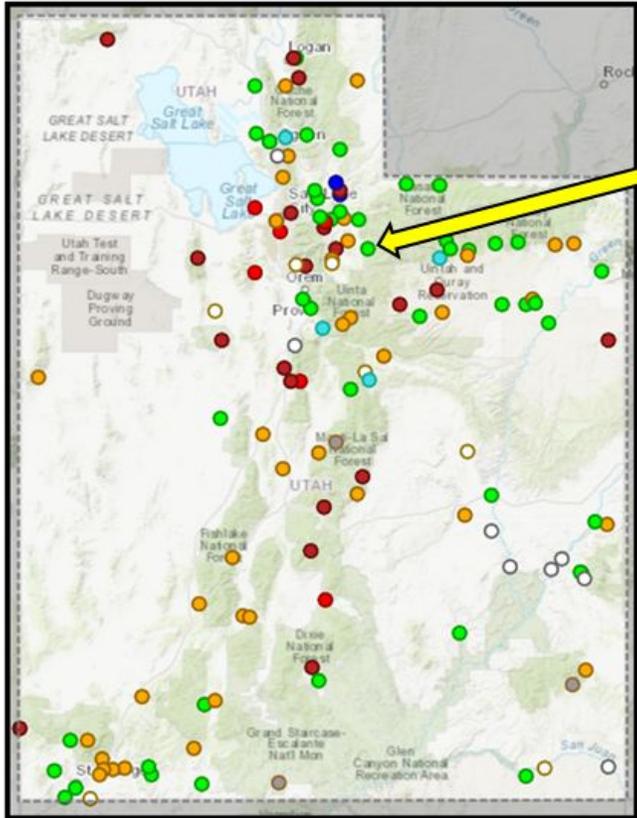
Cumulative Streamflow for Selected Gages



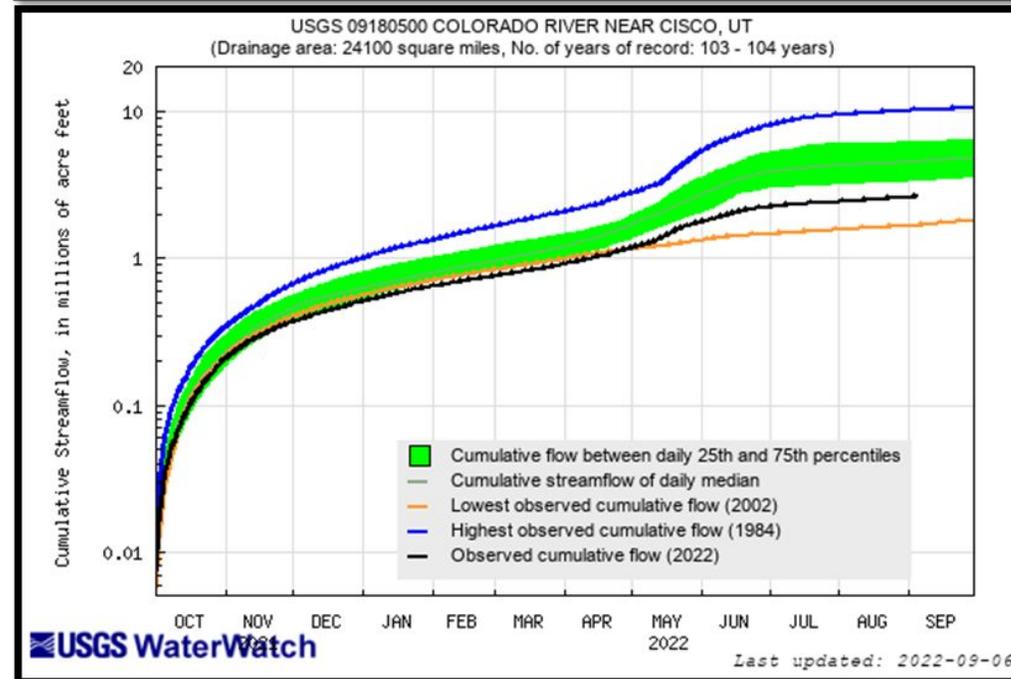
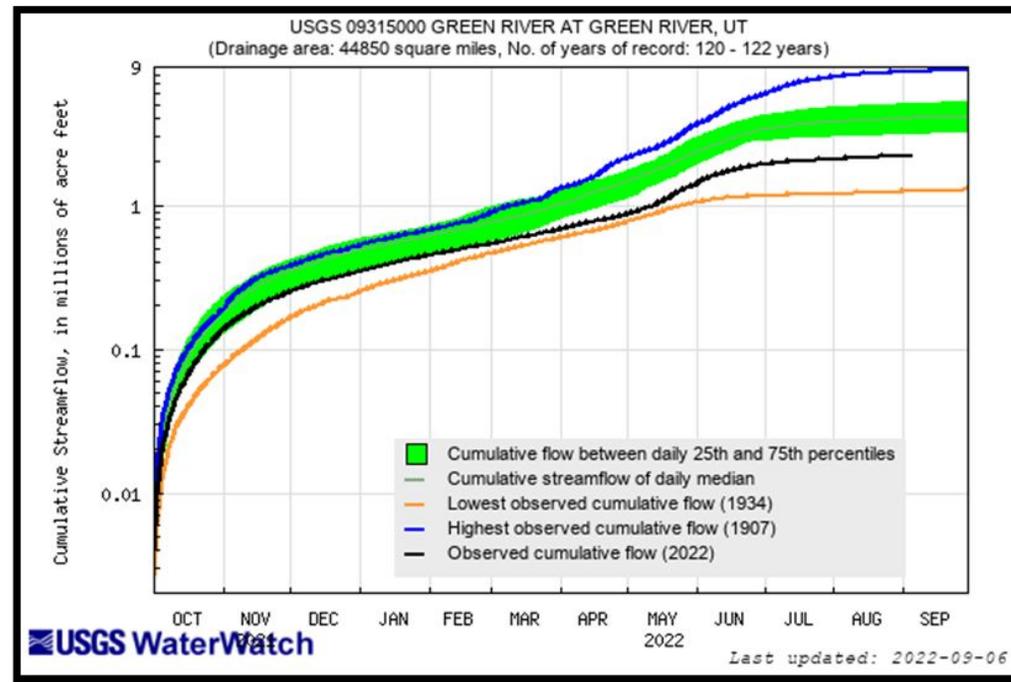
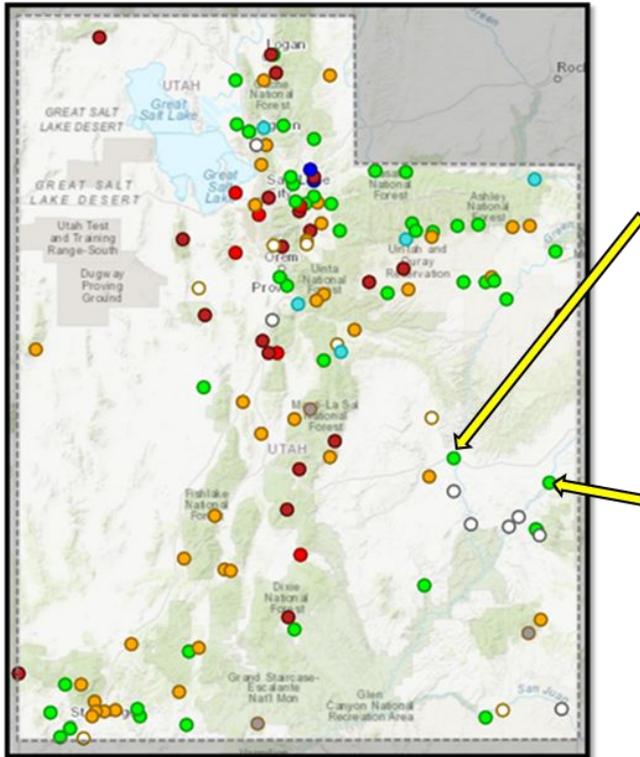
Cumulative Streamflow for Selected Gages



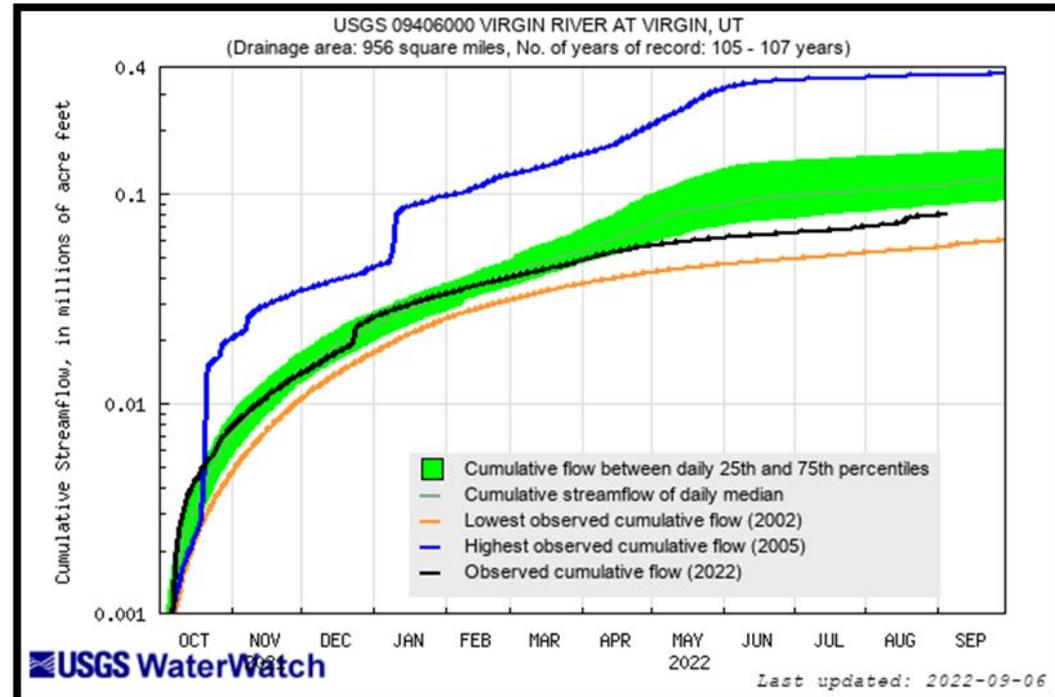
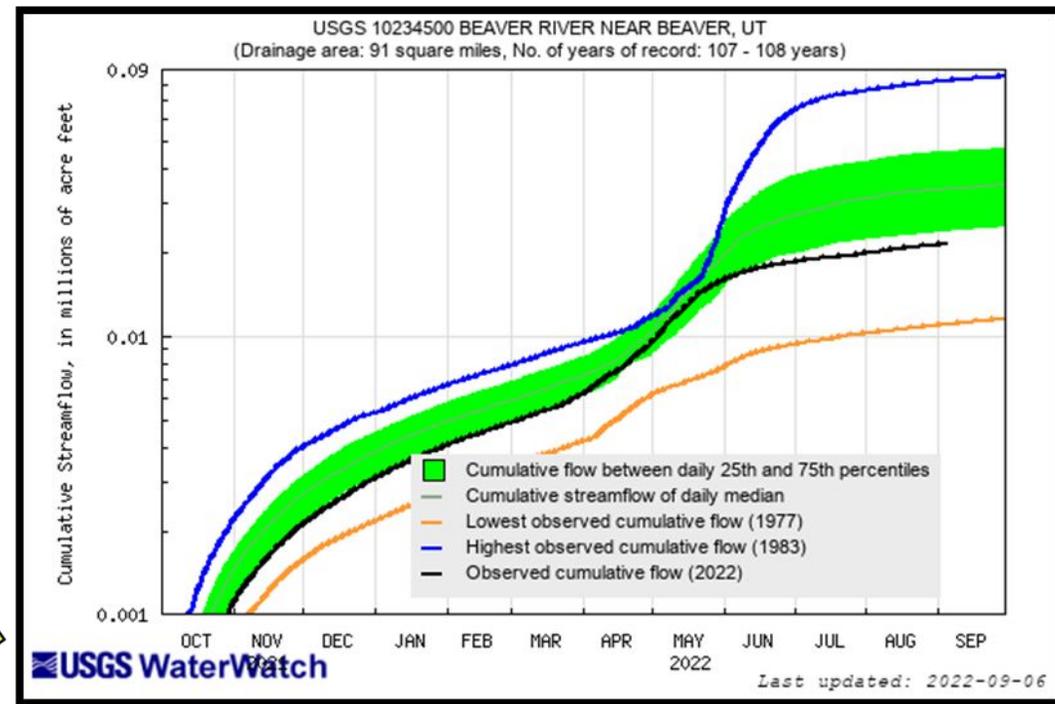
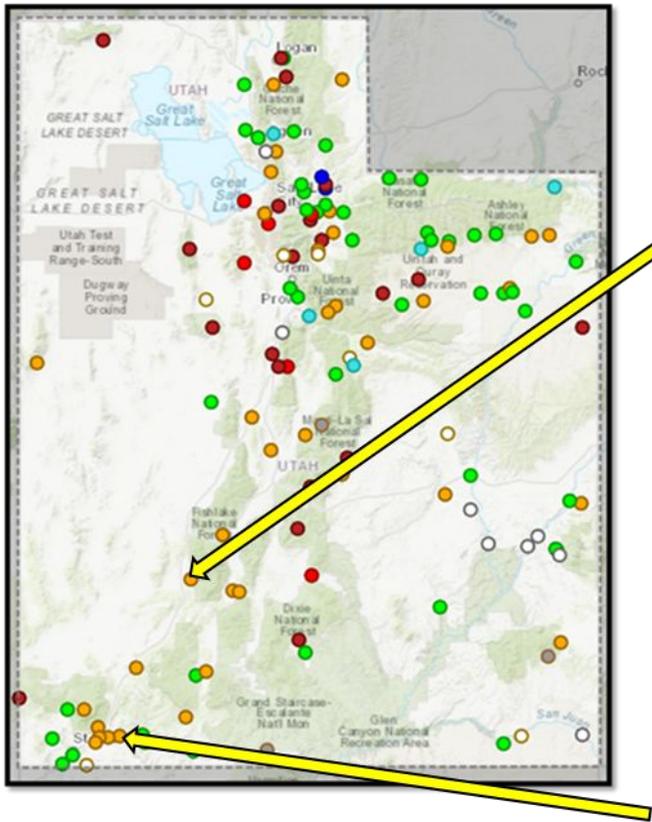
Cumulative Streamflow for Selected Gages



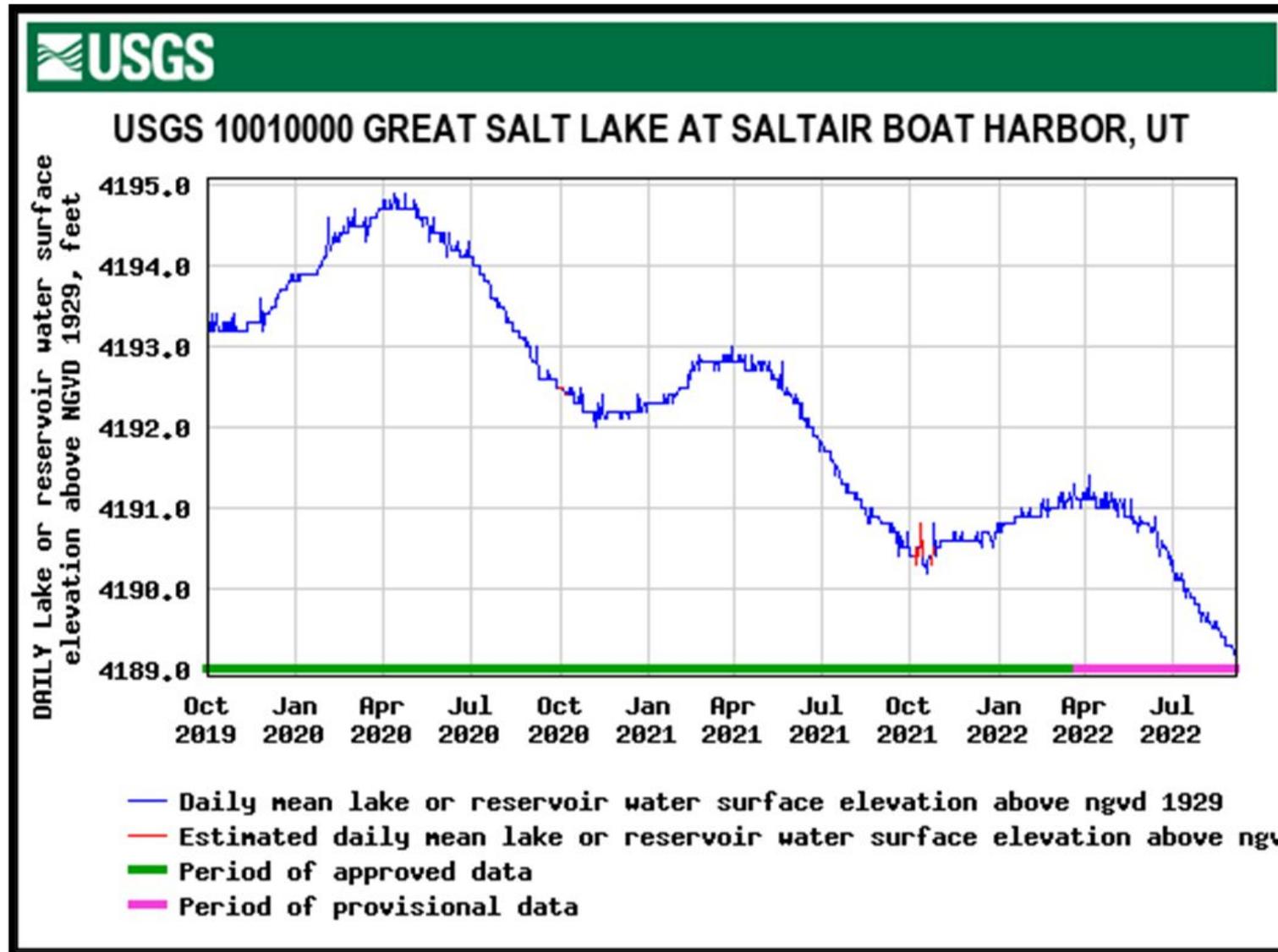
Cumulative Streamflow for Selected Gages



Cumulative Streamflow for Selected Gages

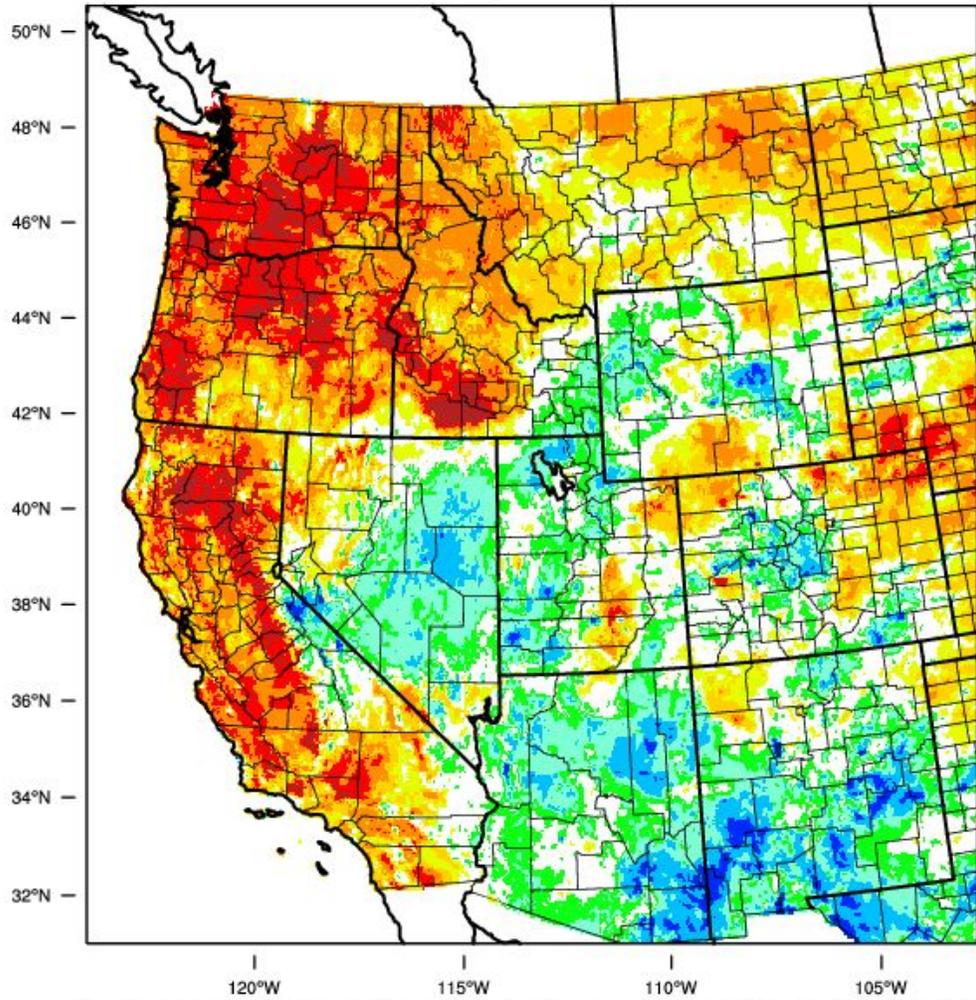


Great Salt Lake Water Surface Elevation



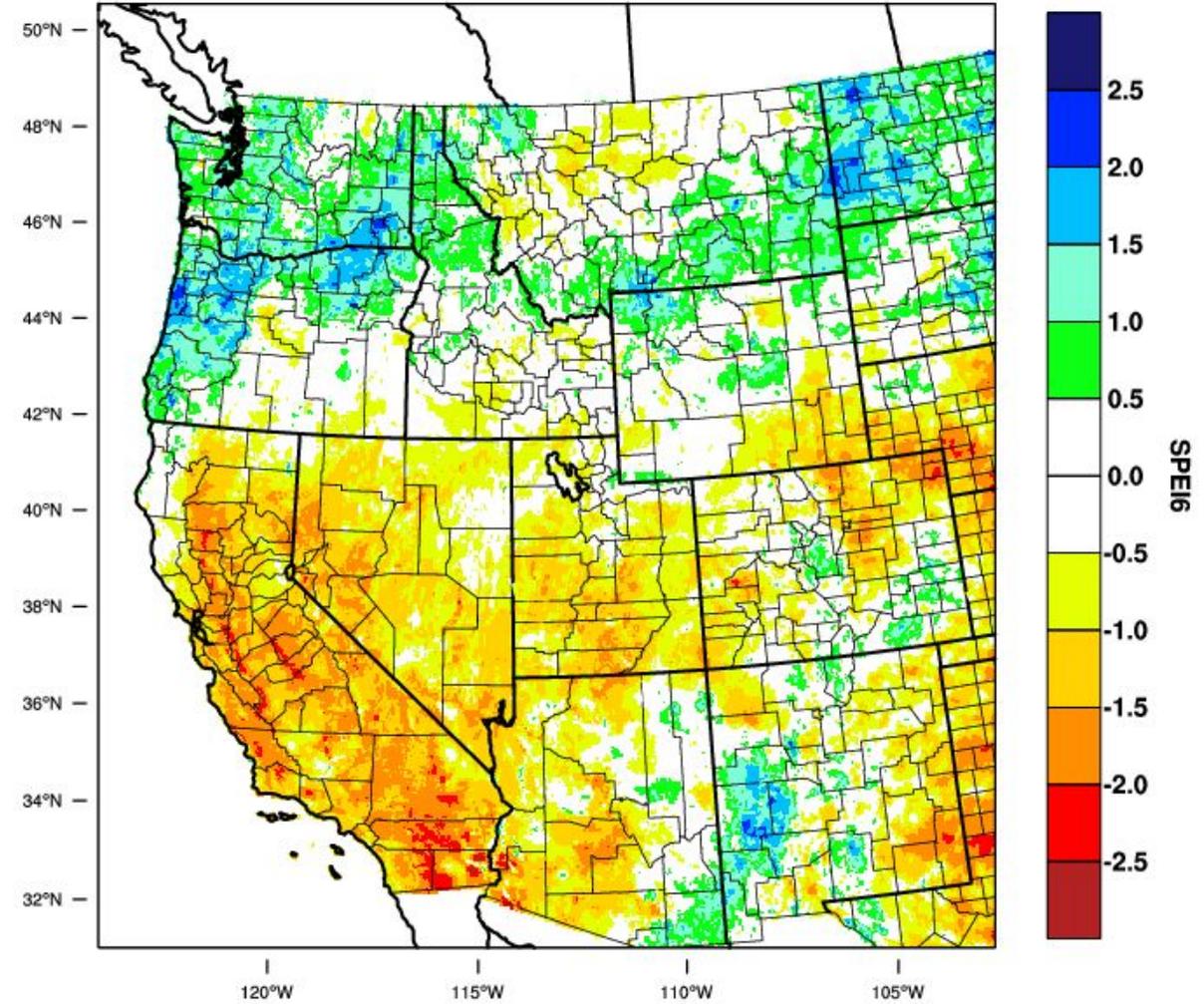
- ❑ Mean daily value 9/5/2022 = 4,189.2' (record lows continue)
- ❑ Mean daily value 8/21/2022 = 4,189.4'

Western United States - 1 month SPEI
August 2022



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 SEP 2022

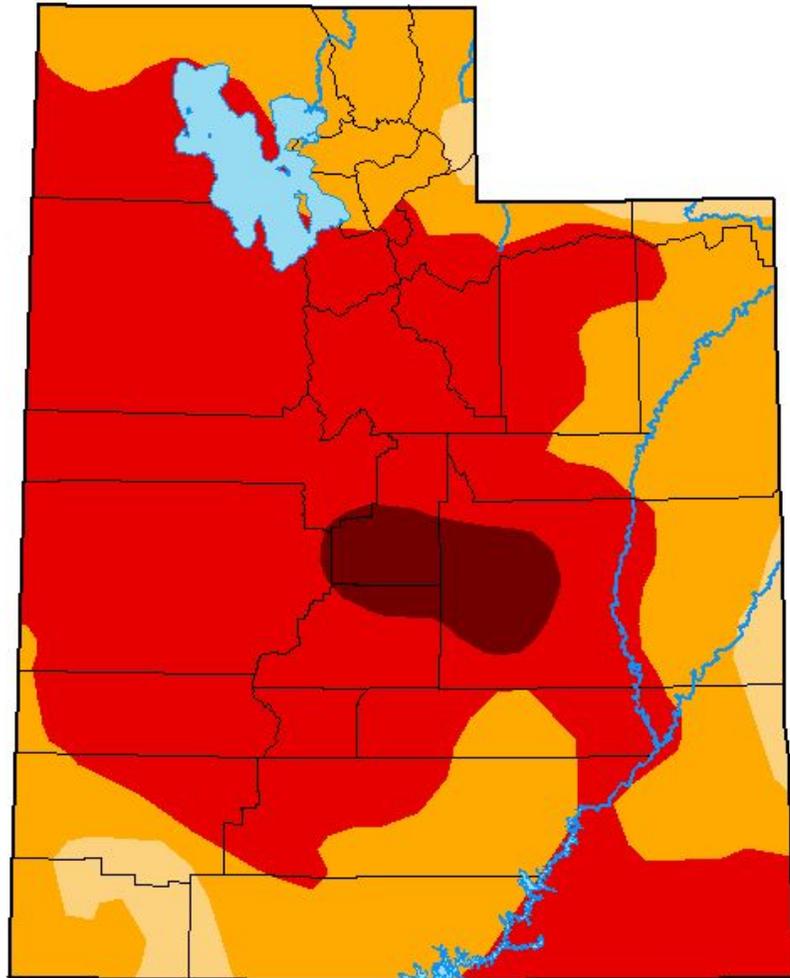
Western United States - 6 month SPEI
August 2022



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 SEP 2022

U.S. Drought Monitor Utah

August 30, 2022
(Released Thursday, Sep. 1, 2022)
Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

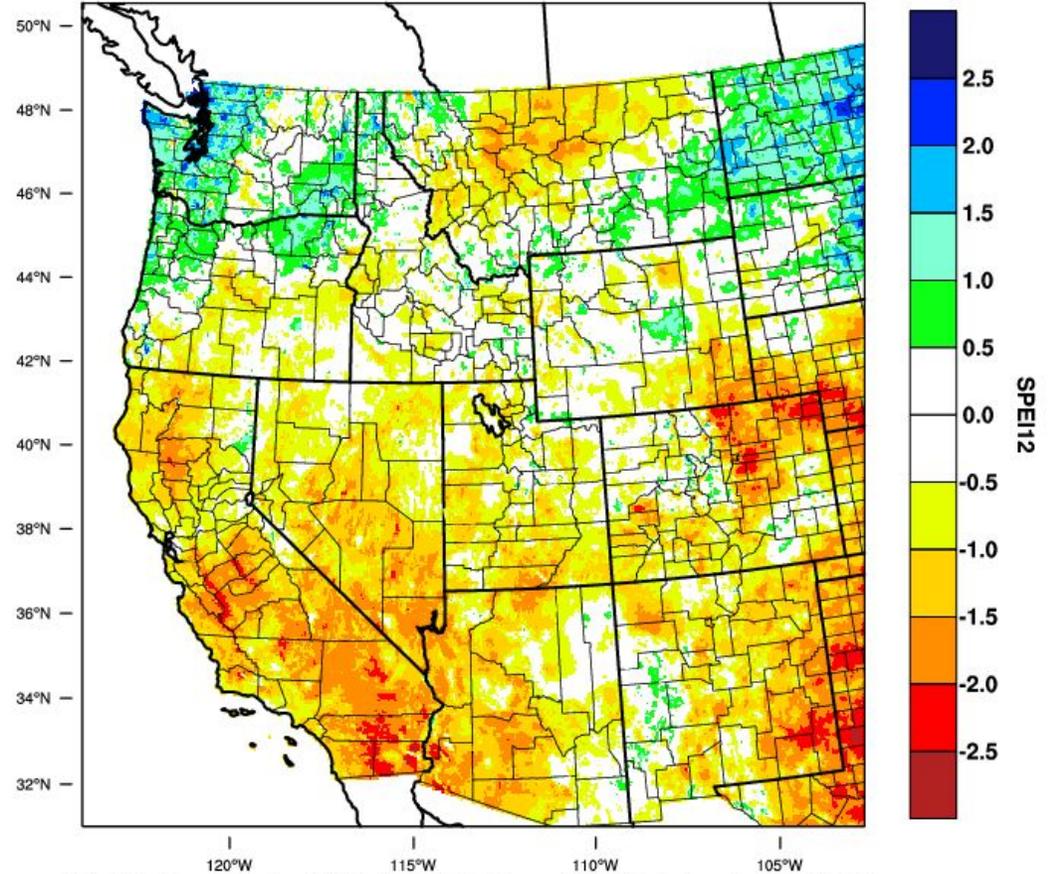
Author:

Deborah Bathke
National Drought Mitigation Center



droughtmonitor.unl.edu

Western United States - 12 month SPEI
August 2022



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 SEP 2022